



The Botanical Register

Sydenham Teast Edwards, John Lindley



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THE
BOTANICAL REGISTER:

CONSISTING OF

Coloured Figures

OF

EXOTIC PLANTS,

CULTIVATED IN

BRITISH GARDENS;

WITH THEIR

HISTORY AND MODE OF TREATMENT.

THE DESIGNS BY

Sydenham Edwards,
AND OTHERS.

VOL. VI.

—viret semper—nec fronde caduca
Carpitur.

LONDON:

PRINTED FOR JAMES RIDGWAY, PICCADILLY.

1820.

APPENDIX TO THE CATALOGUES OF BOOKS

IN THE

FOREGOING FIVE VOLUMES;

OR,

List of Books quoted in the Sixth Volume and which have not been enumerated in the Lists given in any of the other Volumes.

ACTES de la soc. d'hist. nat. de Paris. Actes de la Société d'Histoire Naturelle de Paris. Tom. 1. 1 partie. Paris, 1792. fol.

Adanson fam. Familles des Plantes. Par M. Adanson. Paris, 1763. 2 Parties. 8vo.

Barton's elem. of bot. ed. Lond.* Elements of Botany, or outlines of the Natural History of Vegetables, illustrated by thirty Plates. By Benjamin Smith Barton. Revised, with notes by the english Editor. London, 1804. 8vo.

Boccon. sic. Icones et descriptiones rariorum plantarum Siciliæ, Melitæ, Galliæ et Italiæ; auctore Paulo Boccone. Oxonii, 1674. 4to.

Bork. holz. Versuch einer forstbotanischen Beschreibung der in den Hessesen-Darmstädtischen landen in freien wachsenden Holzarten. Von Moriz Balthasar Borkhausen. Frankfurt am Main, 1790. 8vo.

Bory de St. Vincent voy. Voyage dans les quatre principales Iles des Mers d'Afrique, fait par ordre du gouvernement, pendant les années 1801 et 1802. Par J. B. G. M. Bory de St. Vincent. Paris, 1804. 3 vol. 8vo.

Bosc. dict. d'agr. Annales de l'Agriculture Françoisse par Messrs. Tessier et Bosc. Paris, 1799. 68 vol. 4 vol. par an. seqq.

Brown's botany of Congo. Observations systematical and geographical on the Herbarium collected by Professor Christian Smith, in the vicinity of the Congo, during the expedition to explore that river under the command of Captain Tuckey, in the year 1816. By Robert Brown. London, 1818. 4to.

Bulletin. Bulletin des Sciences, par la Société Philomatique. Paris, 1791—1805. 4to.

Decand. monsp. Augustin Pyramus de Candolle Catalogus plantarum horti botanici Monspeliensis, addito observationum circa species novas aut non satis cognitass fasciculo. Monspeli, 1813. 8vo.

* This book should have been inserted in the Catalogue of the Second Volume.

Desfont. cat. (ou tabl.) Tableau de l'école de botanique du jardin du Roi. Par M. Desfontaines. Ed. 2. Paris, 1815. 8vo.

Edinb. philos. journ. Edinburgh Philosophical Journal. Edinburgh, 1819. Vol. 1. seqq.

Ehret pict. Plantæ et Papiliones rariores depictæ et ære incisæ à Geo. Dion. Ehret. Tabulæ 15. Londini, 1748—1759. fol.

Gaterau montaub. Description des plantes qui croissent aux environs de Montauban ou qu'on cultive dans les jardins. Par M. Gaterau. Montauban, 1789. 8vo.

Gmel. bad. als. Carol. Christ. Gmelin. Flora Badensis-Alsatice. Carlsruhæ, (1) 1805, (2) 1806, (3) 1808. 8vo.

Gron. fl. orient. Flora orientalis, sive Recensio Plantarum quas Leonhardus Rauwolfius annis 1573, 1574, 1575, in Syria, Arabia, Mesopotamia, Babylonia, Assyria, Armenia, Judæa crescentes observavit et collegit. Curâ Johan. Fred. Gronovii. Lugduni-Batavorum, 1755. 8vo.

Haworth succ. suppl. Supplementum plantarum succulentarum, sistens plantas novas vel nuper introductas sive omissas in Synopse Plantarum Succulentarum. Aut. A. H. Haworth. Londini, 1719. 8vo.

Hughes barbad. The Natural History of Barbados, by Griffith Hughes. London, 1750. fol.

Knight et Salisb. prot. On the cultivation of the plants belonging to the natural order of *PROTEÆÆ*, with their generic as well as specific characters and places where they grow wild. By Joseph Knight. London, 1809. 4to.

Lagasca gen. et spec. Genera et Species Plantarum, quæ aut novæ sunt aut nondum rectè cognoscuntur. Auct. Mariano Lagasca. Matriti, 1816. 4to. Cum Elench. impress. (Vid. cat. vol. 4. ad *Lag. elench.* ubi annus 1816, non 1716 ponendus).

Lehmann asperif. Plantæ è familia Asperifoliarum nuciferæ. Descripsit Joannes Geo. Christ. Lehmann. Berolini, 1818. Partes 2. seqq. 4to.

Lobel adv. Stirpium adversaria nova, auctoribus Petro Pena et Matthia de Lobel. Londini, 1571. fol. Matthiæ de Lobel adversariorum pars. ib. 1605. fol.

Marsch. bieb. fl. taur. cauc. suppl. Flora Taurico-caucasica. Auct. L. B. Friderico Marschall à Bieberstein. Supplementum continens plantas phanerogamas per Tauriam atque Caucasum, post edita priora volumina, detectas, et in pristinas animadversiones. Charkouiæ, 1819. 8vo.

Mér. par. Nouvelle Flore des environs de Paris. Par F. V. Mérat. Paris, 1812. 8vo.

- Muhlenb. catal.** *Catalogus Plantarum Americæ Septentrionalis hucusque cognitarum indigenarum et cicurum.* By Henry Muhlenberg. Edit. 2. Philadelphia, 1818. 8vo.
- Münch. hausv.** *Der Hausvater.* (Auctore Von Münchhausen). Hannover. (Zweyter Theil, 1766). 8vo.
- Petiv. mus.** *Musæi Petiveriani Centuria prima Rariora Naturæ continens.* A Jacobo Petiver. Londini, 1695. 8vo.
- Pollich palat.** Joh. Adam Pollich. *Historia Plantarum in Palatinatû sponte nascentium.* Manheim, 1776. vol. 3. 8vo.
- Rau enum.** *Enumeratio Rosarum circa Wirceburgum et pagos adjacentes sponte crescentium cum earum definitionibus descriptionibus et synonymis, &c. &c.* Auct. Ambrosio Rau. Cum tab. æneâ pictâ. Norimbergæ, 1816. 8vo.
- Roloff ind. h. craus.** Christ. Lud. Roloff. *Index Plantarum Horti Krausiani.* Berolini, 1746. 8vo.
- Roxb. fl. ind.** *Flora Indica, or descriptions of Plants by the late Dr. Roxburgh.* Edited by William Carey. To which are added descriptions of Plants more recently discovered by Nathaniel Wallich, Superintendent of the Botanic Garden at Calcutta. Serampore, 1820. Vol. 1. seqq. 8vo.
- Russell alepp.** *The Natural History of Aleppo,* by Alex. Russell. 2d Edition. Revised by Patrick Russell. London, 1794. 2 vol. 4to.
- Smith new holl.** *A specimen of the Botany of New Holland,* by J. E. Smith. London, 1793. 4to.
- Sprengel cent. spec. minus cogn.** *Novi Proventus Hortorum Academicorum Halensis et Berolinensis. Centuria specierum minus cognitarum, quæ vel per annum 1818 in horto halensi et berolinensi floruerunt vel siccæ missæ fuerunt.* Auct. C. Sprengel. Halæ, 12mo.
- Trattinick archiv. der gewachs.** *Archiv der gewachskunde.* Wienn, 1811; seqq. 4to.
- Trattinick obs. bot.** Idem. *Observationes botanicæ Tabularium rei herbariæ illustrantes.* Viennæ, 1811; seqq. 4to.
- Viviani fl. ital.** Dom. Viviani. *Floræ Italicæ fragmenta.* Genuæ, 1808; seqq. 4to.
- Wahl. carp.** Georgii Wahlenberg. *Flora Carpathorum principalium.* Göttingæ, 1814. 8vo.
- Zanon. ist. bot.** *Istoria Botanica di Giacomo Zanoni.* Bologna, 1675. fol.

ERRATA.

- Vol. 2. fol. 142. l. 5. for "*Jussieu gen. 307.*" read "*Jussieu gen. 307.*"
- Vol. 2. fol. 152. l. 14. for "*Barton's elem. of bot. ed. Lond.*" read "*Barton's elem. of bot. Lond. ed. append. 30. tab. 25.*"
- Vol. 3. fol. 220. l. 5. pro "*Div. II.*" lege "*Div. IV.*"
- Vol. 3. fol. 245; overleaf, l. 7. for "broader than long" read "longer than broad."
- Vol. 3. fol. 258. l. 9. pro "*abiuns*" lege "*abiens.*"
- Vol. 4. in cat. libr. p. iv. l. 16. for "1716" read "1816."
- Vol. 4. fol. 265. l. 7. pro "*vol. 1. fol. 43.*" lege "*vol. 4. fol. 221.*"
- Vol. 4. fol. 339; overleaf, l. 6. for "remitted" read "transmitted."
- Vol. 4. fol. 349. l. 3. of the english text. Leave out the words "or, as it is."
- Vol. 5. fol. 350; overleaf, last line but one, for "but might" read "but the name from the above work might."
- Vol. 5. fol. 365. l. 5; from the bottom, after "form of" add "a."
- Vol. 5. fol. 366. l. 4. from the bottom, for "of these distinguished" read "of these, which is distinguished."
- Vol. 5. fol. 377. l. 2. of the english text, for "with that in" read "the one in."
- Vol. 5. fol. 404. l. 17; pro "*Achenia plurima*" pone "*Achenia plurima.*"
- Vol. 5. fol. 432; overleaf, l. 18, 19; for "shows that excellent horticulturist to have intended" read "shows that that excellent horticulturist intended."
- Vol. 5. fol. 435. l. 16. pro "*ungulati*" lege "*angulati.*"
- Vol. 5. both Indexes in this Volume, for "*Mespilus japonicus*" read "*Mespilus japonica.*"
- Fol. 440; overleaf, l. 16. for "*LEUCAJUM*" read "*LEUCOJUM.*"
- Fol. 441; overleaf, last line: for "*OLEA odoratissima*" read "*OLEA fragrans.*"
- Fol. 448. l. 18. à calce paginæ: pro "*Wahl cauc.*" pone "*Wahl carp.*"
- Fol. 450. l. 8. for "*Cuckow-pint*" read "*Cuckow-pint.*"
- Fol. 480; overleaf, l. 3, for "Donn" read "Don."
- Fol. 509. l. 11. pro "capoque" lege "scapoque."
- In the several Indexes to the volumes preceding the present, for "*Euphorbia punicea*, vol. 3. 199." read "*Euphorbia punicea. vol. 3. 190.*"



JASMINUM undulatum.

China Jasmine.

DIANDRIA MONOGYNIA.

Nat. ord. JASMINEÆ. Jussieu gen. 104. Div. II. Fructus baccatus.

JASMINEÆ. Brown prod. 2. 520.

JASMINUM. Suprà vol. 1. fol. 1.

Div. Folia simplicia.

J. undulatum, foliis cordato-oblongis nitidis, ramis pedunculisque hirtis, pedunculis subtrifloris, lacinii calycinis rectis. Vahl enum. 1. 27; (exclus. syn. *Burmanni*).

Jasminum undulatum. Willd. sp. pl. 1. 36; (excl. syn. *Rheedei*).

Mogorium undulatum. Lamarck encycl. 4. 212.

Nyctanthes undulata. Linn. sp. pl. ed. 2. 1. 8; (excl. syn. *Rheedei*).

Arbuscula. Caulis erectus, (ramosissimus, cortice subcastaneo-fuscâ: rami subbrachiato-ramulosi, elongati, diffusi, supernè volubiles, numerosè foliosi, nob.), teretes, uti ramuli petioli pedunculi calycesque è villis copiosis hirti. Folia breviter petiolata, opposita, vix bipollicaria, attenuata, subundulata, avenia, nervosa. Pedunculi breves ex apice ramulorum. Flores albi tres vel plures. Calycis lacinie setaceæ. Corollæ limbus 8-fidus: lacinie oblongæ. Vahl loc. cit.

We do not know of any published figure of this rare species. It has not appeared in the Hortus Kewensis, nor have we met with it among the numerous East Indian ones observed by Dr. Roxburgh; at least we find no mention of it in the manuscripts of that botanist in the Banksian Library.

We were favoured with the specimen from a plant which flowered in Lady Aylesford's collection at Stanmore; but have never heard that the species has been seen in blossom in any other of our gardens. Very strong plants of it are growing at Messrs. Colville's nursery in the King's Road, Chelsea, where they are kept in the hothouse.

Native of China, and apparently more nearly related to *JASMINUM angustifolium* than to any other; but in that the branches have scarcely any fur, the foliage is far more widely apart than in this, scarcely undulate and of a lighter green, the flowers of much larger dimensions, and the leaves with an even ovately rounded, instead of a cordately indented, base. The two agree however in the curious upright straight setaceous narrowed segments of the calyx.

A bushily branched dark full-leaved *shrub*, having a thickish straight tall clean stem with an opaque chesnut-brown bark: *branches* brachiatelately subdivided, long, twining at the upper part, numerouslly leaved, round, like the branchlets petioles peduncles and calyxes covered with a close short roughish fur. *Leaves* cordate, oblong, of a dark dingy glossy green, shortly petioled, opposite, $1\frac{1}{2}$ -2 inches long, tapered, slightly waved, veinless, nerved. *Peduncles* generally three-flowered. *Flowers* white. Segments of the *calyx* narrow, setiform, straight. *Limb* of the *corolla* eight-parted, stellate: *segments* oblong.

JASMINUM and NYCTANTHES are now the only genera comprised in the Order *Jasmineæ*; abundantly distinguished, as Mr. Brown observes, from the *Oleinæ*, lately detached from them, by the difference of the situation of the ovula, as well as of the structure of the seed, the mode in which the corolla is divided and its æstivation (or the way it is disposed in the bud-state). Neither is there any resemblance between the general appearances of the two orders; though they coincide in so far as that both have a diandrous regular corolla and a fruit which is either berried or capsular.

The *Jasmineæ*, freed from the *Oleinæ* (or Olive-tribe), have been defined by Mr. Brown in the first part of the Pro-dromus of his Flora of New Holland, and the following is our version of that character.

Species shrubby and generally twining. *Leaves* opposite, usually compound, ternate or pinnate with an odd leaflet at the end, sometimes simple; *petiole* jointed in most. *Flowers* of the corymbes opposite. *Calyx* of one piece, either divided or only indented, permanent. *Corolla* one-petalled, inferior, regular, hypocrateriform (tubular with a divided rotate limb); *limb* 5-8-parted, segments overlapping at the edges, imbricate and twisted together before they expand. *Stamens* epipetalous (upon the corolla), enclosed within the tube. *Germen* without any surrounding glandular disk (not imbedded at the base in a shallow fleshy matrix as this part is in some of the nearest tribes), 2-celled; *cells* one-seeded; *ovula* upright. *Style* single. *Stigma* 2-lobed. *Fruit* either a twin berry or a bipartible capsule. *Seed* either with a very scanty *albumen* or else with none at all. *Embryo* straight: *radicle* inferior.



H. B. K. del.

Det. by J. Ridgway 176. Bland. March 1. 1820

S. M. M. a.

IPOMŒA sagittifolia.

Catesby's Ipomœa.

PENTANDRIA MONOGYNIA.

Nat. ord. CONVULVULI. *Jussieu gen.* 132. Div. I. Stylus unicus.CONVOLVULACEÆ. *Brown prod.* 1. 481. Sect. I. Germen unicum.IPOMŒA. *Suprà vol.* 1. fol. 9.

I. *sagittifolia*, volubilis, glaberrimus; foliis oblongo-sagittatis; sinu profundissimo: auriculis subacuminatis, pedunculis unifloris, laciniis calycis rotundato-ovalibus, corollâ infundibuliformi-campanulatâ. *Pursh amer. sept.* 1. 144; (*sub CONVULVULO sagittifolio*).

Convolvulus sagittifolius. *Michaux bor. amer.* 1. 132. *Persoon syn.* 1. 177. *Pursh loc. cit.* *Poiret suppl. encyc. de Lamarck* 3. 461. *Elliot sket.* 1. 254. *Nuttall* 1. 123. n. 9.

Convolvulus speciosus. *Walt. carol.* 93.

Convolvulus caroliniensis angusto sagittato folio, flore amplissimo purpureo, radice crassâ. *Catesb. carol.* 1. 35. t. 35.

Perennis radice crassâ caule tereti, glabro. Folia glabra margine integro, mucronata, lobo antico posticis divergentibus longè acuminatis acutissimis pterinimum latiore: petioli uni-biunciales. Flores ampli, roseo-purpurei, folia exsuperantes: pedunculis axillaribus, solitariis, unifloris, petiolo robustioribus, erectis, circa medium bibracteolatis. Calycis foliola erecta, imbricato-conniventia, ovato-oblonga, apice rotundata, subæqualia, tria exteriora reliquis manifestius mucronata. Corolla infundibuliformis, limbo exanguloso, fauce extus carneo-pallente cylindricâ unciali, triplo longiore calyce. Filamenta inæqualia, basi barbata: anth. lineari-oblongæ, albidae erectæ, basi sagittatæ. Stylus staminibus longior, stigmate bicolli-globoso vel didymo-capitato, albo, incluso. Caps. 2-3-valvis, bilocularis.

We are obliged to Mr. Herbert for the excellent drawing of this plant, as well as for a specimen of the same. It was raised last year in the hothouse at Spofforth from seed received from Carolina, and flowered during the summer. The species does not appear to have been introduced before, nor is there a sample of it either in the Herbarium of Sir Joseph Banks or that of Mr. Lambert. Mr. Elliot, the author of the very useful work entitled "A Sketch of the Botany of South Carolina and Georgia," tells us, that it grows wild "along the sides of salt waters; among rushes and saline plants." Mr. Pursh speaks of it as native of Virginia and Carolina, and as growing in wet situations among bushes. Catesby, upon the authority of Colonel Mure, a Carolinian gentleman, said to have been an eye-

witness of the fact, tells us, that the Indians, after rubbing themselves with the juice of this plant, handle the Rattlesnake without fear of harm.

The species had not been recorded in any general system of Vegetables previous to the appearance of the Synopsis of Persoon. It comes very near to the *IPOMŒA sagittata* of Messrs. Poiret and Desfontaines (the *CONVOLVULUS Wheleri* of Willdenow's Species Plantarum), a native of Spain and Barbary; but there the lower leaves are cordate and only the upper sagittate; in all other respects, however, as far as we can judge from a middling engraving and the short descriptions by which alone *sagittata* is known to us, the two resemble each other very exactly, even to the colour of the flower; and both are attached to wet maritime spots of the mutually distant regions to which they respectively belong.

Perennial. *Root* thick. *Stem* smooth round, twining about small bushes, rarely prostrate. *Leaves* oblongly sagittate, smooth, entire round the edge, the front lobe much broader than the two hinder ones, which are divergent longly tapered and sharply pointed: *petioles* from one to two inches long. *Flowers* large, of a purplish rose-colour; *peduncles* solitary, axillary, one-flowered, stouter than the petioles, upright, with two small opposite close-pressed *bractes* situated about the middle of it. *Leaflets* of the calyx upright, imbricately connivent, ovately oblong, rounded at the end, nearly equal, three outer ones more conspicuously mucronate than the two inner ones. *Corolla* funnellform; *limb* cornerless; *faux* of a pale flesh colour on the outside, cylindrical, an inch long, 3 times the length of the calyx. *Filaments* unequal, bearded at the base. *Anthers* linearly oblong, whitish, upright, sagittate at the base. *Style* longer than the stamens; *stigma* didymously capitate, white, enclosed within the faux. *Capsule* 2-3-valved, 2-celled.



CELSIA sublanata.
Collinsonia-scented Celsia.

DIDYNAMIA ANGIOSPERMIA.

Nat. ord. SOLANÆÆ. *Jussieu gen.* 124. Div. Fructus capsularis.

SOLANÆÆ. *Brown prod.* 1. 443. Sect. II. B.

CELSIA. *Cal.* 5-partitus. *Cor.* rotata patens 5-loba inæqualis. *Filamenta* villosa. *Stigma* 1. *Cups.* 2-valvis. *Herbæ; folia simplicia aut pinata; flores laxi spicati terminales, singuli unibracteati aut foliolo axillares.* CELSIÆ creticæ *filamenta* 2 *glabra.* *Juss.* l. c.

C. sublanata, tota lanato-tomentosa, caule suffruticoso: foliis ovali-oblongis obtusis crenatis rugosis mollibus uno alterove pari foliolorum (nunc minorum) sessilium appendiculatis; staminibus pilis capitatis barbatis.

Celsia sublanata. *Jacq. fragm.* 79. n. 247. t. 126.

Planta bipedalis, tota lanato-tomentosa. Caulis suffruticosus, erectus, digitum crassum, teres, semipedalis et ultra, supernè ramosus: rami annui, pilis albis densè obsiti, virentes. Fol. alterna, petiolata, ovali-oblonga, obtusa, duplicato-crenata, rugosa, mollia, uno-alterove pari foliolorum sessilium appendiculata; petiolis densè hirsutis. Racemi terminales, simplices, longi, multiflori, erecti. Pedicelli subunciales, patentissimi, bracteis suffulti sessilibus convolutis acutis subserratis et parvis. Flores suaveolentes, omnino odore COLLINSONIÆ. Calycis foliola ovata, acutula, villosa, virentia. Cor. rotata, flava cum fauce et ungue purpurascens, laciniis subrotundis, subæqualibus. Fil. erecta, petalo breviora, purpurea, omnia pilis capitatis purpureis barbata. Stylus glaber: stigma obliquum. Caps. subrotunda, bilocularis, glabra: semina minuta. *Jacq.* l. c.

CELSIA differs from its nearest co-ordinate VERBASCUM in having four instead of five stamens; according to Schrader, a stable mark and of influence sufficient to keep the two groups naturally apart, notwithstanding their close agreement in most other respects.

We have not found any mention of the species except in the above-cited work of Jacquin. There are no specimens of it in the Banksian Herbarium. Jacquin, who first observed it in the gardens of Vienna, had not learned from whence it came. In general appearance the inflorescence comes nearest to that of CELSIA *Arcturus*, but the foliage of *sublanata* is alternate and otherwise distinct, and bears a greater resemblance to that of CELSIA *betonicaefolia* than to any other, as far as we can judge from a description by Desfontaines and a costly engraving by M. Robert.

The drawing was taken from a specimen sent to us by the civility of Mr. Biggs, Curator of the Botanic Garden at Cambridge; and we are not aware that the plant is in any other collection in this country.

Hardy; about two feet high covered with a fur of a nature between woolly and cottony. *Stem* suffrutescent, upright, of the thickness of a man's finger, round, about half a foot high or more, branching at the upper part: *branches* annual, beset with a thick white fur, green. *Leaves* alternate, petioled, ovally oblong, obtuse, doubly crenate, wrinkled, soft, winged with one or two pairs of very small sessile leaflets distant from the main one: *petioles* thickly and shaggily furred. *Racemes* terminal, simple, long, many-flowered, upright. *Pedicles* an inch or more in length, horizontally extended: *bractes* subtending, sessile, convolute, pointed, partly serrate, small. *Flowers* sweet-scented. Leaflets of the *calyx* ovate, rather pointed, villous, green. *Corolla* rotate, deep yellow, with a purple faux and unguis; *segments* roundish nearly of the same size. *Filaments* upright, shorter than the corolla, purple, bearded with purple-headed hairs. *Style* smooth. *Stigma* slanting. *Capsule* roundish, two-celled, smooth: *seeds* minute.

The above is a version of Jacquin's description; the specimen having faded before we had an opportunity of describing from it.



CONVOLVULUS pentanthus.

Jacquin's East India Bindweed.

PENTANDRIA MONOGYNIA.

Nat. ord. CONVULVULI. *Jussieu gen.* 132. *Div. I.*CONVOLVULACEÆ. *Brown prod.* 1. 481. *Sect. I.*CONVOLVULUS. *Suprà vol.* 2. *fol.* 133.*Div. Caule volubili.*

C. pentanthus, caule volubili fruticoso, foliis oblongo-cordatis acuminatis subrepandis glabris, pedunculis umbellatim subquinquefloris, floribus subsessilibus, calycibus ciliatis. *Jacq. ic. rar.* 2. 10. *tab.* 316.

Convolvulus pentanthus. *Jacq. coll.* 4. 210. *Willd. sp. pl.* 1. 855. *Poiret suppl. Lamarck encyc.* 3. 468.


Frutex caule ramisque teretibus glabris. Folia oblongo-cordata v. subovata, acuminata, nervosa nervo medio laterales plurimos parallelos divaricato-ascendentes utrinque emittente, subtus reticulato-venosa, ad marginem villosiuscula, suprà nuda, majora subtriuncialia interdum basi subhastato-excisa sinu brevi latissimo, juniora sinu angusto: petiolus villosiusculus uni-sesquiuncialis v. ultrà. Pedunculi axillares, solitarii, 2-6-unciales, filiformes, graciles, elastico-rigentes, ascendentes, villosiusculi, terminati cymâ subcapitato-contractâ pluri-(sub5-) florâ subtrichotomâ subfoliosâ, foliolis 2 v. bracteis ad dichotomias. Cal. foliaceus, tenuis, venosus, usque ad basin partitus, foliolis erectis, inæqualibus, ovato-acuminatis, ciliatis, 2 multò majoribus villosiusculis à plano oppositis florem nascentem intercludentibus, lateribus reflexis. Cor. cærulea, rotata, radiis 5 pallidioribus stellata, angulato-5-loba. Fil. æqualia, basi barbata: antheræ pallidæ. Stylus albus, indivisus: stigmata 2 replicata, oblonga, cylindracea, brevia, albida, pruinosa.

It does not appear by any of the horticultural records that this pretty shrub has ever appeared in our gardens till last year; when it flowered in December in Mr. Kent's richly stored and well-managed hothouse at Clapton, having been raised from seed from the East Indies.

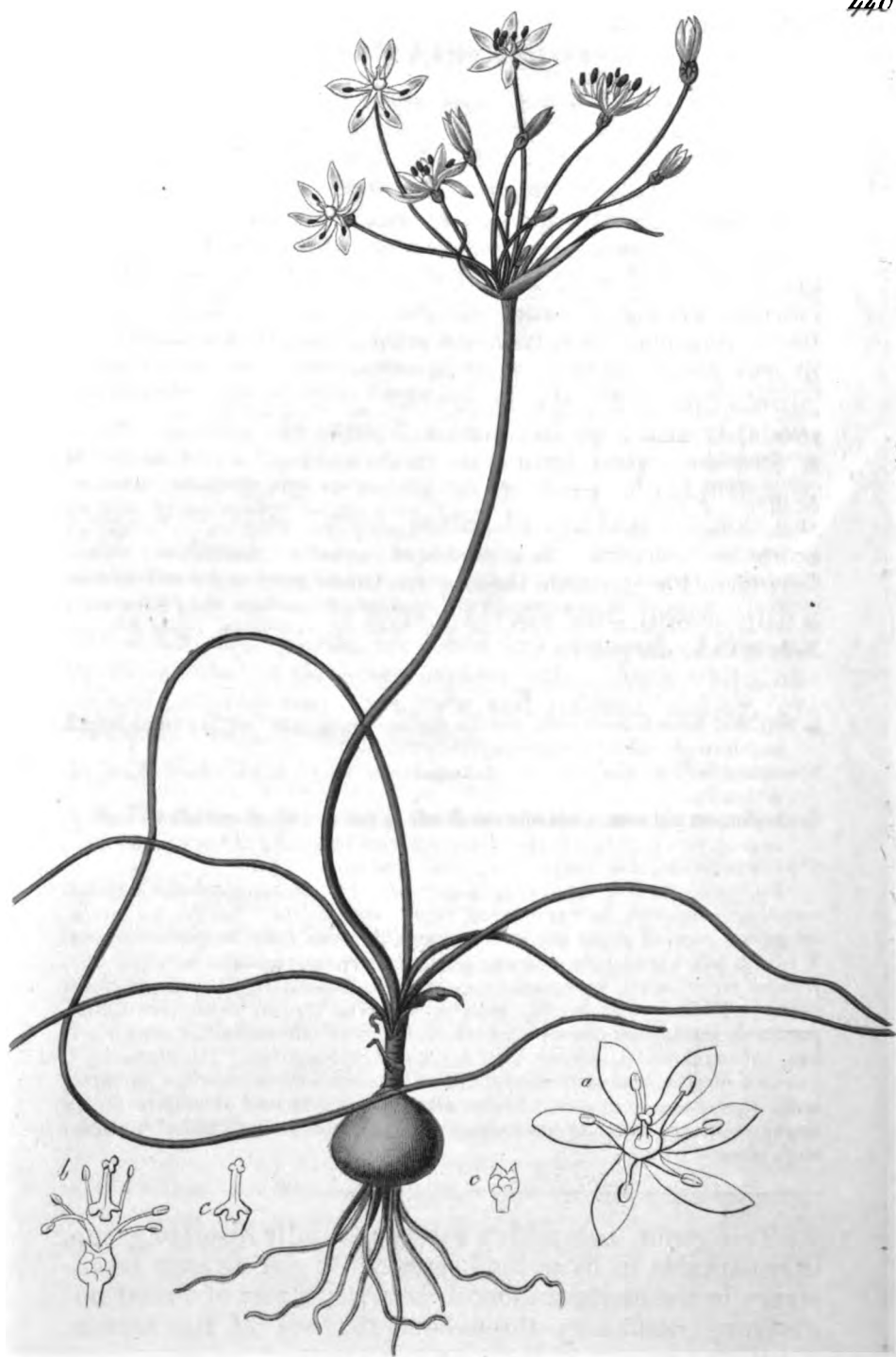
In regard to inflorescence the species has considerable affinity with *CONVOLVULUS involucratus*, an account and figure of which will be found in Volume 4. (fol. 318) of this publication. But it comes still nearer to *CONVOLVULUS malabaricus*, as far as we can judge from an unpublished figure and description of that species among Dr. Roxburgh's manuscripts in the Banksian Library; by which we find that it differs from *pentanthus* principally in having no

bractes, a corolla of a different colour, and a small membranous calyx instead of a large foliaceous one.

A twining *shrub*; *stem* and *branches* round, smooth. *Leaves* oblongly cordate or subovate, taper-pointed, with a midrib furnished on each side with numerous parallel divaricately ascending nerves, reticulately veined underneath, slightly villous at the edge, quite naked on the upper side, the larger ones about three inches long, sometimes subhastately cordate at the base with a shallow but very broad sinus, in the younger ones the sinus is always narrow: *petiole* slightly napped, from an inch to an inch and a half long or longer. *Peduncles* axillary, solitary, from two to six inches long or more, filiform, slender, firm and elastic, ascending, slightly napped, terminated by a several-(about 5?)-flowered subtrichotomous somewhat leafy *cyme* with a pair of small leaves or *bractes* at the forks of the divisions. *Calyx* leafy, thin, veined, parted to the base, *leaflets* upright, unequal, ovate, taper-pointed, fringed, 2 much larger than the rest facing each other shutting in the flower-bud and reflexed at the sides. *Corolla* blue, rotate, with a star of five paler points, five-lobed and cornered. *Filaments* equal, bearded at the base: *anthers* pale. *Style* white, undivided: *stigmas* two, divaricate and reflexed, oblong, cylindrical, short, frosted, whitish.



N. The stigmas in the outline of the dissection are somewhat magnified.



Root del.

Pl. by J. Ridgway 170. Reprinted. March, 1. 1820.

J. M. R. a.

STRUMARIA filifolia.

Fine-leaved Strumaria.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. *Jussieu gen. Div. II.*AMARYLLIDÆ. *Brown prod. 1. 296. Sect. I.*

STRUMARIA. *Spatha* 2-valvis, brevior *umbellâ* bracteata. *Cor.* supera, erecta v. nutans, regularis, subæqualis, 6-petalo-partita, turbinata ad stellato-divaricatam, laciniis lanceolatis, nunc in tubum ad basin connexis. *Fil.* disco corollæ inserta, haud rarò exserta, distincta v. monadelpha v. alterna 3 inter se concreta 3 altera gynandricè cum stylo: *anth.* oblongæ, plurimùm breviores filamentis, versatiles. *Stylus* strictissimus, polymorphus, nunc fusiformis triquetro-sulcatus, nunc alatus, nunc infernè strumâ variâ protuberans: *stig.* 3, attenuata, replicata vel in cuspidem coadunata. *Cups.* membranacea, trigibba, 3-valv. valvis medio septigeris: *sem.* biserialia, in loculamentis singulis pauca, v. unicum bulboso-laxatum albumine herbaceo-emollito. *Bulbus tunicatus.* *Fol.* 2-plura è vaginâ radicali, filiformia ad lorato-oblonga, à plano bifaria, nunc tardiora scapo. Umbella parca laxa ad congesto-multiradiatam. In quibusdam corpuscula 3 strumosa inter stylum et stamina videnda. Differt HÆMANTHO, tam ob spatham non multivalvem quàm ob capulam non baccatam; à LEUCOJO ob spatham non follicularem ob antheras breviores filamento, necnon haud inversas neque apice hiantes. Nob. in Curtis's magaz. 1363.

S. filifolia, foliis filiformibus, corollis stellato-divaricatis: stylo strumâ inflatâ anguloso-plicatâ infra medium protuberante.

Strumaria filifolia. *Jacq. ic. rar. 2. 14. Willd. sp. pl. 2. 32. Hort. Kew. ed. 2. 2. 213.*

Leucojum strumosum. *Solander in Hort. Kew. 1. 407. t. 5. Jacq. coll. 3. 222. ic. rar. t. 361; (in ipsâ icone non verò in textû.) Thunb. prod. 68.*

Crinum tenellum. *Lin. suppl. 194; (excl. synonymo).*

Bulbus ovatus magnitudine ovi passerini. Fol. plura, plurimùm longiora scapo, procumbentia, subtus convexa, suprâ canaliculata. Scapus 3-4-uncialis pennâ corvinâ duplo gracilior, flexuosus, nunc infrâ sanguineo-rubens. Umbella pluri(6-10-)flora, laxa: pedunc. patentes, unciales v. ultrâ, filiformes, strictiusculi, suprâ subtriquetri. Flores inodori. Germ. subglobosum, 3-gibbum. Cor. erecta, micans, intus candicans, extus cinamomeo-punicans, semunciam transversa v. circâ, laciniis 3-plo latitudine angustioribus, subunguiculatis, concavis, ad basin usque distantibus. Fil. distincta, ½ breviora corollæ, basi ovato-dilatata contigua, indè setaceo-subulata patentia: anth. cinnamomeo-rubentes. Stylus albus, infernè strumâ obovato-turbinatâ angulari-plicatâ micante extumescens, indè triquetro-subulatus, 3-sulcus: stig. obsolete trina.

This genus, comprising a very naturally assorted group, is remarkable in its ordinal section, for the strange inconstancy in the configuration of the style, a part of almost undeviating uniformity throughout the rest of the section.

In this genus however it is a part more prone to conspicuous change in the transitions of species, than even the less essential ones, and those usually the subjects of obvious variation, are found to be in most other vegetables—and it would seem as if this circumstance was combined with a similar tendency in the filaments, which occur within the corresponding limits, sometimes entirely distinct, at other times variously monadelphous, at others partly monadelphous and partly gynandrous, three alternate ones adhering one to the other, the rest to the style; differences that in strictness would require their dispersion among three distant classes of the Linnean System.

All the species yet known belong to the Cape of Good Hope; from whence the present was introduced by Mr. Masson in 1774, and soon after recorded by Dr. Solander in the first edition of the Hortus Kewensis, under *LEUCAJUM*; from which genus, though plainly its near of kin, it differs in not having a follicular or unilaterally dehiscent spathe, nor reversed anthers longer than the filament, and that shed the pollen from an aperture at their summit.

In the genus our species is known by a style with a turbinate ovate angularly plaited wenlike protuberance, forming the part below the middle and just above the base.

The drawing was taken towards the end of autumn from a plant that flowered in the conservatory of Mr. Griffin, at South Lambeth, where the bulb had been recently received from abroad. We never saw it growing in any other collection.

SPECIES.

- spiralis. nob. in Curtis's magaz. tab. 1383.*
- rubella. Jacq. ic. rar. tab. 358.*
- stellaris. nob. AMARYLLIS. Jacq. hort. schænb. tab. 71.*
- crispa. nob. in Curtis's magaz. tab. 1363.*
- gemmata. nob. in Curtis's magaz. tab. 1620.*
- undulata. Jacq. ic. rar. tab. 360.*
- linguæfolia. Jacq. ic. rar. tab. 356.*
- truncata. Jacq. ic. rar. tab. 357.*
- angustifolia. Jacq. ic. rar. tab. 359.*
- filifolia. Suprà.*



STENOCARPUS salignus.

Willow-leaved Stenocarpus.

TETRANDRIA MONOGYNIA.

Nat. ord. **PROTEÆ.** *Jussieu. gen.* 78. *Div. II.* Fructus unilocularis polyspermus.

PROTEACEÆ. *Brown in trans. lin. soc.* 10. 15, *seqq.* *Div. II.* Fructus dehiscens. *Subdiv. A.* Unilocularis.

STENOCARPUS. *Cor.* irregularis, petalis distinctis secundis. *Stamina* apicibus cavis petalorum immersa. *Glandula hypogyna* unica, semiannularis. *Germ.* pedicellatum polyspermum. *Stylus* deciduus. *Stigma* obliquum, orbiculato-dilatatum, planiusculum. *Folliculus* linearis. *Semina* basi alata! *Frutices* glaberrimi. *Folia* alterna, integerrima. *Umbellæ* axillares v. terminales pedunculatæ. *Flores* ochroleuci. *Brown prod.* 1. 390.

S. salignus, foliis elongato-lanceolatis basi trinervibus. *Brown prod.* 1. 390.
Stenocarpus salignus. *Brown in linn. trans.* 10. 202.

It is a notable fact in botanical geography, and of which the observation is due to Mr. Brown, that the type of no australasian species of the present natural order, has been found to have extended itself into another region. With the exception of the present genus, a species of which has been found in New Caledonia, and of *LOMATIA* exemplified by several species in South America, the same observation applies to genera under the existing definitions.

STENOCARPUS appears to come between *LOMATIA* and *BANKSIA*, and consists at present of two species, of which only the New Holland one has found its way into our gardens. When we do not exactly know, but most probably not long since. It has not a place either in the *Hortus Kewensis* or in Sweet's Catalogue, the latest and most comprehensive enumeration of the plants in our gardens.

The drawing was taken from a sample that flowered in the greenhouse at the nursery of Messrs. Colville in the King's Road, Chelsea, where it had been raised from imported seed, along with other curious plants from the same quarter.

The generic name has been suggested by the narrowness of the follicle (unilaterally dehiscent seedvessel). The main technical difference that marks the group in its tribe, is the striking anomaly of the seed being winged at the base, instead of the summit.

Both species are smooth shrubs with alternate entire leaves, axillary or terminal umbels borne on stalks, and cream-coloured or greenish white flowers. They are comprised in the following general character: *Corolla* irregular, *petals* distinct, in one direction. *Stamens* sunk in the hollow of the tops of the petals. *Hypogynous gland* (a gland below the germen) solitary semicircular. *Germen* pedicled (with a stalk), many-seeded. *Style* deciduous. *Stigma* slanted, orbicularly dilated, flattish. *Follicle* linear. *Seeds* winged at the bottom.

The species is distinguished from its congener *Forsteri* by elongately lanceolate leaves with three nerves at the base.

We should observe that the flowers are exceedingly fragrant; with the flavour of those of *OLEA odoratissima*.



Kunt del.

Sib. by J. Ridgway 170. Peardibg. March 1 1820

J. B. H. & Co.

LOMATIA longifolia.

Long-leaved Lomatia.

TETRANDRIA MONOGYNIA.

Nat. ord. PROTEÆ. Jussieu gen. 78. Div. II. Fructus 1-loc. polyspermus.

PROTEACEÆ. Brown in trans. linn. soc. 10. 15, seqq. Div. II. Fructus dehiscens. Subdiv. A. Unilocularis.

LOMATIA. Cor. irregularis, petalis distinctis secundis. Stam. apicibus cavis corollæ immersa. Glandulæ hypogynæ 3, secundæ. Germ. pedicellatum, polyspermum. Stylus persistens. Stig. obliquum, dilatatum, subrotundum, planiusculum. Folliculus ovali-oblongus. Sem. apice alata; alâ marginatâ, disco evasculoso. Frutices. Fol. alterna, in plerisque divisa v. dentata, rarius integerrima, quandòque in eodem frutice varia. Racemi terminales, interdum axillares, elongati, laxi, nunc abbreviati corymbosi, paribus pedicellorum 1-bracteatis. Flores ochroleuci. Involucr. nullum. Seminis nucleus fariná sulphurêa conspersus. Brown prod. 1. 389.

L. longifolia, foliis lineari-lanceolatis elongatis glabris remotè serratis, racemis axillaribus, pedicellis corollisque pilosiusculis, pistillis glaberrimis. Brown prod. 1. 390.

Lomatia longifolia. Brown in linn. trans. 10. 200. Sweet hort. suburb. lond. 22.

Embothrium myricoides. Gært. sem. 3. 215. t. 218? (conjectante Dom. Brown.)

Tricondylus myricæfolius. Knight et Salisb. prot. 122.

The foliage of the plant of our figure was considerably narrower and far less conspicuously indented than in the native specimens in the Banksian Herbarium: the racemes were also longer and more remotely flowered. But we believe the differences to be entirely imputable either to seminal variation or exotic culture; and not the types of specific origin.

The species is not enumerated in the Hortus Kewensis; but we find by Sweet's useful Catalogue of the Garden Plants in the environs of London, that it was introduced in 1816 from New Holland; where it was originally observed by Mr. Brown on the Eastern Coast, near Port Jackson, growing on rocky banks of rivers and streams.

LOMATIA is the only genus of the australasian *Proteaceæ*, besides STENOCARPUS of the preceding article, that has been yet observed to extend its type into other regions. It con-

sists at present of eight species, three of which belong to South America, the rest to New Holland. The following is the version of its character as defined by Mr. Brown. *Corolla* irregular: *petals* distinct, in the same direction. *Stamens* sunk within the hollow summits of the corolla. *Hypogynous glands* (glands below the pistil) 3, in one direction. *Germen* stalked, many-seeded. *Style* permanent. *Stigma* slanted, dilated, roundish, a little flattened. *Follicle* ovally oblong. *Seeds* winged at the top; *wing* bordered, evascular in the space within the border. The species consist of *shrubs* with alternate and for the most part either divided or toothed *leaves*, seldom quite entire, but sometimes varying in this respect on the same plant: *racemes* that are generally terminal, but sometimes axillary, sometimes elongated and loosely flowered, sometimes close and corymbose; *pedicles* in pairs with one *bracte* to each pair; cream-coloured *flowers*: no *involucre*: and the body of each *seed* powdered over with a sulphur-coloured meal.

Longifolia is specifically distinguished in the genus by its linearly lanceolate elongated smooth widely serrate leaves, axillary racemes, slightly furred pedicles and corollas, and smooth pistils.

The drawing was taken last summer from a plant in the conservatory at the nursery of Messrs. Colville in the King's Road, Chelsea. It is still rare; although of easy culture and propagation.



GREVILLEA buxifolia.

Box-leaved Grevillea.

TETRANDRIA MONOGYNIA.

Nat. ord. **PROTEÆ.** *Jussieu gen.* 78. *Div. II.* Fructus unilocularis polyspermus.

PROTEACEÆ. *Brown in trans. linn. soc.* 10. 15, *seqq.* *Sect.*

II. Fructus dehiscens. *Subdiv. A.* Unilocularis.

GREVILLEA. *Cor.* irregularis; petalis laciniisve secundis: apicibus cavis staminiferis. *Anth.* immersæ. *Glandula hypogyna* unica, dimidiata. *Germ.* dispermum. *Stig.* obliquum depressum, (raro subverticale, conicum.) *Folliculus* 1-loc., 2-spermus, loc. centrali. *Sem.* marginata, v. apice brevissimè alata. Frutices rarius arbores, pilis dum adsint medio affixis? *Fol. alterna*, indivisa v. pinnatifida. *Spicæ* nunc elongatæ racemosæ, nunc abbreviatæ corymbosæ v. fasciculiformes, involucri nullo, pedicellis geminatis, raro pluribus, paribus fasciculisve 1-bracteatis. *Corollæ* sæpius rubicunde nunc flavæ, in quibusdam obliquè insertæ. *Folliculi* rel coriacei ovati, stylo toto coronati, seminibus ovalibus, angustissimè marginatis et apice brevissimè alatis: vel lignei, suborbiculares, pseudo-bivalves, basi tantummodò styli mucronati, seminibus undique alatis. *Brown prod.* 1. 375.

Div. I. *Folliculi* coriacei stylo toto stigmatæque depresso coronati. *Semina* ovalia angustissimè marginata, apice brevissimè alata. *Subdiv. C.* *Folia* omnia integerrima. *Flores* fasciculati, subumbellati. *Pistillum lanatum*, pedicellatum. *Folliculus* ecostatus. **ERIOSTYLIS.** *Brown l. c.* *G. buxifolia*, foliis ellipticis suprà punctatis scabris subtilis tomento adpresso cinereis, stigmatæ orbiculato appendicem recurvum vix æquante. *Brown prod.* 1. 379.

Grevillea buxifolia. *Brown in trans. lin. soc.* 10. 174. *Idem in Hort. Kew. ed. 2.* 1. 206.

Embothrium buxifolium. *Willd. sp. pl.* 1. 538. *Smith new holl.* 29. t. 10. *Andrews's reposit.* 218.

Embothrium genianthum. *Caranill. ic.* 4. 60. t. 387.

Stylurus buxifolia. *Knight et Salisb. prot.* 115.

Stylurus collina. *Knight et Salisb. prot.* 116? (conjectante Dom. Brown.)

This pretty shrub was introduced by Messrs. Lee and Kennedy from New South Wales in 1790. The drawing was taken from a plant that flowered in the greenhouse of Messrs. Colville, of the Chelsea Nursery in the King's Road, in November last. We shall transcribe some remarks on the genus from Mr. Brown's elaborate account of the order to which our plant belongs.

"GREVILLEA is probably the most extensive genus of *Proteaceæ* in New Holland, and admits of division into several very natural sections, most of which are readily dis-

tinguishable by more than one character, existing either in the parts of fructification or in habit, notwithstanding which I have not ventured to separate them into distinct genera, as I probably should have done, had I been acquainted with fewer species; but have given to each section a proper name, a practice that may perhaps be advantageously adopted in all large genera, where they are thus capable of natural subdivision. It must be unnecessary to observe that proper names can in this manner be given only where the sections are perfectly natural, and not in those cases where genera have been subdivided from single characters, and those too of but little importance, as in Thunberg's division of *PROTEA*, from the form and division of the leaves, to which may be opposed the masterly subdivision of the same genus given by Linnæus in the *Mantissa*, whose sections, though apparently depending upon single characters, are evidently formed from a contemplation of the whole structure, as far as it was then understood; and it is remarkable that, with the exception of the first species, with whose real structure he was necessarily unacquainted, the rest are arranged, and even divided into sections, in most cases corresponding with the genera proposed in the present way."

Buxifolia falls within the division distinguished by coriaceous follicles surmounted by the entire style with its depressed stigma, and by oval seeds which are either very shallowly bordered all round or very shortly winged at the top; and within the subdivision entitled *ERIOSTYLIS*, containing those species where the leaves are all entire, flowers fascicled and subumbellate; pistil woolly and stalked, and the follicle without ribs. Among these it is specifically characterized by elliptical leaves dotted and rough above, cinereous underneath, from the effect of a close-pressed cottony fur, and by an orbicular stigma that is scarcely equal to its recurved appendage at the top.

Our page will not admit of the version of the definition of the genus by Mr. Brown.



AMARYLLIS aulica.

Mr. Woodford's Amaryllis.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. Jussieu gen. 54. Div. II.

AMARYLLIDÆ. Brown prod. 1. 296. Sect. I.

AMARYLLIS. Suprà vol. 3. fol. 226.

Div. Bi-multifloræ: tubus coronatus: folia bifaria.

A. aulica, biflora, ringens; foliis nitidis; tubi coronâ firmâ coloratâ obsoletâ denticulatâ; lacinia imâ limbi infernè involutâ; staminibus inclusis.*Amaryllis aulica*. *Nobis in journ. of scien. and the arts.* 2. 353. *Sweet hort. sub. lond.* 65. n. 10.

Bulbus integumentis cinerascentibus. Fol. plus minus 9, lorato-elongata, utrinque attenuata, erecto-divergentia, non glauca. Scapus vix longior foliis, teres, glauciusculus. Germ. latè virens, oblongum, rotundatè 3-gonum, exsulcum, estriatum. Cor. nutans punicea, venis saturatibus picta, infernè pro ½ parte virescens, subsuncialis, 6-petalo-partita, campanulato-ringens, labio inferiore porrecto, superiore suberecto-patente: tubus subnullus, viridis coronâ viridissimâ ½ uncie profundâ v. circâ; faux turbinatè dilatata viridis orâ utrâque atosanguineo-rubens; lacinia oblongæ, lanceolatæ, tres exteriores 2 summis interioribus duplo angustiores, labii inferioris tres infrâ imbricato-conniventes suprâ distantes, harum laterales 2 lineari-oblongæ sursum obliquatæ canaliculatæ, media latior porrectior longiùs acuminata infrâ ex lateribus inflexis filamenta incumbentia comprehendens. Fil. fasciculata, declinato-resurgentia, breviora limbo, rubra, parùm inæqualia, infernè albo et rubro varia, crassitudine fermè pennæ corvinæ: anth. atro-purpureæ, erecto-vibratiles; pollen sulphureum. Stylus filamentis subæquicrassus concolorque, longitudine corollæ: stig. 3 replicata, rubro-violacea, pruinosa.

This splendid novelty was imported by Mr. Griffin from the Brazils. It flowered in the hothouse at South Lambeth in December last. A name had been already attached by ourselves to the species, taken up in a paper on this genus in the second volume of the Journal of Science and the Arts from a transient view of a sample produced in the gardens at Kew.

The species belongs to a division of the genus distinguished by a crowned tube. In most this crown is an inconspicuous shallow colourless pellicle shredded into a kind of fringe; but in a group of 3 newly recorded ones among which is the present, this appendage is nearly entire, substantially membranous, conspicuous, and seemingly associated with the production of a two-flowered scape, if we are

to judge from the specimens we have witnessed in the instances of *calyptrata*, *psittacina*, and *aulica*.

Our plant differs from its two immediate relatives in having a bright foliage, the outer segments of the corolla much narrower than the inner, and the lowermost one of all involute below the middle; specially from *calyptrata* by stamens which are shorter than the limb, from *psittacina* by a more deeply divided corolla and a broader crown of one colour. The species was first observed by the late Mr. Woodford.

We have withdrawn the *AMARYLLIS hyacinthina* of the 163d article (given in the second volume of this publication) from the genus where it had been provisionally deposited, and have founded a new one upon it, under a name intended as an acknowledgment of the benefit derived to Botany from the pursuits of Mr. Griffin; the means through which many and valuable additions have been made to the *Liliaceæ* of our collections.

GRIFFINIA hyacinthina.

GRIFFINIA. *Spatha* 2-valvis umbellâ polyanthâ brevior. *Cor.* infundibuliformis nutans, *limbus* 6-partitus irregularis bilabiato-campanulatus, *laciniæ* 2 laterales *labii* superioris cæteris dissimiles collateralis-conniventes. *Fil.* summo tubo inserta, unum remotum arrectum, reliqua declinata. *Germ.* loculamentis imo angulo collateralis-dispermis: *stig.* simplex. *Sem.* (ex dictû *D. Griffin*) globosa, duriùs tuberosa, nitida.

Differt AMARYLLIDE *stamine* uno inflexione cæterorum contrariâ, *laciniis* 2 *labii* superioris disparibus colore substantiâ atque inflexione quadantibusque etiam formâ, *loculamentis* *germinis* *ovulis* 2 arrectis collateralibus angulo interiori fundi annexis, et *foliis* *petiolatis* cum *laminâ* costatâ. *Pedunculi* *fructiferi* *floriferis* plurimum productiores. *Semina* magnitudine *pisi* majoris, pallidè flavicantia.

Griffinia hyacinthina.

Amaryllis hyacinthina. *Nob. suprâ* vol. 2. fol. 163. et in *journ. of scien. and the arts.* v. 2. 369.



and that's all

221 by J. Polkway 170. Purchased April 1. 1820.

J. Walter ac.

CONVOLVULUS sicularius.

Small-flowered Bindweed.

PENTANDRIA MONOGYNIA.

Nat. ord. CONVULVULI. Jussieu gen. 132. Div. I.
 CONVULVULACEÆ. Brown prod. 1. 481. Sect. I.
 CONVOLVULUS. Suprà vol. 2. fol. 133.

Div. Caule prostrato s. non volubili.

C. sicularius, foliis cordato-ovatis superioribus acutis, pedunculis unifloris folio brevioribus, bracteis oblongo-lanceolatis calyce ciliato longioribus. Willd. *enum.* 1. 205.

Convolvulus sicularius. Lin. *sp. pl. ed.* 2. 1. 223. Mill. *dict. ed.* 8. n. 2. Willd. *sp. pl.* 1. 866. Hort. Kew. 1. 212. *ed.* 2. 1. 335. Lamarck *encyc.* 3. 540. Flor. græc. t. 196. Lam. & Decand. *flor. franç.* 3. 646.

Convolvulus ovatus. Mærch *meth.* 450.

Convolvulus sicularius minor flore parvo auriculato. Boeckl. *sic.* 89. tab. 48.

Convolvulus africanus minor. Moris. *hist.* 2. 18. t. 7. fig. 5.

Annus prostratus v. rarius subvolubilis, pedalis v. subsesquipedalis, ramosus, distanter foliosus, ramis teretibus sublanato-pilosis. Fol. sparsa inflexione subsecundâ, subcordato-ovata, sesquiuncialia v. circa latitudine $\frac{1}{2}$ partium unciae, nervosa, pilosiuscula; petiolus triplo brevior laminâ v. ultrâ. Pedunculi solitarii, axillares, uniflori, filiformi-graciles, bis longiores petiolis, pilosi, juxta infra calycem opposito-bibracteati; bracteis foliaceis elongato-lanceolatis pubescentibus patentibus duplo longioribus calyce. Cal. pilosus; foliola elliptico-lanceolata, acuminata, piloso-ciliata, persistentia, 2 interiora duplo ferè minora, 3 exteriora subaequalia parùm breviora corollâ. Cor. è minimis generis, cæruleus; limbo turbinato-rotato, tubo brevi pallido. Caps. globosa, glabra, apiculata, 2-loc. 4-sperma.

The smallest flowered of its genus we have met with. Usually ranked in the division of trailers or those which do not climb by twining round foreign support; but as the branches of our plant are sometimes seen to wind round each other as they lie on the ground, it seems to us to be rather an intermediate link between the twining and the trailing divisions of the genus, than to belong exclusively to either.

Native of the southernmost parts of Europe, the Coast of Barbary, and Greece. Cultivated, as stated in Parkinson's Theatrum Botanicum, by Mr. James Boel in 1640; but now very rare in our gardens, where we had never met with it, till last October, when we found it in a collection

of curious annuals in the borders of Messrs. Colville's nursery in the King's Road, Chelsea.

Annual; trailing and occasionally in some degree twining, from a foot to about a foot and half long, branching, distantly leaved, *branches* round, with rather a woolly fur. *Leaves* scattered, inclining one way, subcordately ovate, about an inch and a half long, and about $\frac{1}{4}$ of an inch over at the broadest part, nerved, slightly furred: *petiole* thrice shorter than the blade or more. *Peduncles* solitary, axillary, one-flowered, filiform, slender, twice as long as the petiole, furred, oppositely bibracteate just below the calyx; *bractes* leafy elongatedly lanceolate, pubescent, spreading, twice longer than the calyx. *Calyx* hairily furred; *leaflets* elliptically lanceolate, taper-pointed, fringed, permanent, two inner ones nearly twice smaller than the others, three outer ones nearly of one size, little shorter than the corolla. *Corolla* the smallest of any in the genus, azure blue; tube short, pale, limb turbinate rotate. *Capsule* globular, smooth, with a small point at the top, two-celled, four-seeded.



H. Hunt, del.

Det. by S. H. Gregory 170 Pierodilly April 1, 1820.

J. H. Hunt, del.

SALVIA amœna.

Caribbean Sage.

DIANDRIA MONOGYNIA.

Nat. ord. LABIATÆ. Jussieu gen. 110. Brown prod. 499. Sect. I. Stamina 2 fertilia; v: dum 4 fertilia, antheræ omnium dimidiatæ.

SALVIA. Suprà vol. 4. fol. 347.

S. amœna, foliis oblongo-ovatis rugosis serratis; floribus spicato-verticillatis secundis, galeâ corollæ rectâ villosâ; bracteis linearibus deciduis. Jacq. eclog. 69. t. 47; (sub SALVIÂ boosianâ.)

Salvia amœna. Curtis's magaz. 1294. Aiton's epitome in add. 379.

Salvia boosiana. Jacq. eclog. loc. cit.

Salvia Boosii. Trattinick observat. botan. 1. 59. Ejusd. archiv. der gewächskunde. 1. no. 92; (fide Jacquini in loc. cit.)

Salvia latifolia. Anderson in trans. soc. enc. arts and man. 25. 210; (exempl. prototypum spontaneum ex ins. Scti. Vincentii in herb. D. Lambert).

Salvia violacea. Donn. cant. ed. 4. 8; (non aliorum).

Radix perennis. Caules fruticosi, 6 ad 8 pedes alti, digitum minorem inferius crassi, erecti, lignosi, cortice fusco-viridi rimoso vestiti. Rami oppositi, patentes, laxi, obtusè tetragoni, glabri, purpurascenti-virides. Folia opposita, petiolata, oblongo-ovata, acuminata, serrata, undata, rugosa, utrinque glabra, facie lætè viridi, nitida; dorso pallida ad lentem subtilissimè punctata sed opaca venisque prominentibus reticulata, majora 6 pollices longa, 2½ lata; petioli bipollicares et breviores, glabri, teretes, suprà depressi. Flores brevissimè pedicellati, in spicis terminalibus verticillatis secundis: verticilli 3-6-flori, singuli bracteis 2 minimis lineari-lanceolatis marcescentibus deciduis suffulti. Cal. cylindricus, striatus, ad lentem pubescens, subringens; labio superiore integro acuto, inferiore bifido segmentis divaricatis acutis. Cor. cyanea: tubo albo glabro, sub fauce constricto; fauce ampliata subplicata sub labiis angustata glabra; labiis subæqualibus, superiori extus villosa recto concavo obtuso apice emarginato, inferiore trilobo plano glabro, lacinia mediâ rotundatâ majore, lateralibus oblongis. Fil. longitudine corollæ, alba, post anthesin erecta, in medio pedicellata, parte inferiore latiore connata et interdum glandulâ antheriformi aucta: anth. lutescentes, erectæ, didymæ. Stylus longitudine labii superioris, flavescens, sub stigma villosus: stig. bifidum laciniiis inæqualibus revolutis. Jacq. loc. cit.

A West-Indian shrub, known in our hothouses for at least twenty years past; and prized for the beautiful blue of the inflorescence. We are told by Baron Jacquin, that the plant was recognized by Messrs. Humboldt and Bonpland, in a visit to the Schœnbrunn Gardens, as one they had observed in the course of their travels, but we cannot identify it to our satisfaction with any of the numerous species in

the botanical works of those celebrated naturalists; and have consequently omitted the synonym adduced by Baron Jacquin from Willdenow as referring to a plant among those of Messrs. Humboldt and Bonpland.

There are wild samples of the species in the Herbarium of Mr. Lambert, gathered by Dr. Anderson in the woods of the Island of St. Vincent, and recorded as above. There is also in the same Herbarium a sample from Jamaica with a spike of flowers nearly a foot in length.

Root perennial. *Stems* shrubby, 6-8 feet high, about as thick as the little finger at the lowermost part, upright, woody, with a cracked brownish green bark. *Branches* opposite, spreading, wide-set, obtusely 4-cornered, smooth, green tinged with purple. *Leaves* opposite, petioled, oblongly ovate, taper-pointed, serrate, waved, wrinkled, smooth on both sides, on the upper side of a lively green, on the under pale, and when seen through a magnifying glass marked with very subtile dots but opaque and reticulately and varicosely veined, the largest ones about 6 inches long, by $2\frac{1}{4}$ broad: *petioles* about 2 inches long or less, smooth, round, depressed above. *Flowers* very shortly stalked, on terminal spikes, in whorls pointing one way: *whorls* 3-6-flowered, each whorl with two minute linearly lanceolate withering deciduous subtending *bractes*. *Calyx* cylindrical, fluted, obscurely furred, subringent; *upper lip* entire pointed, *lower* 2-cleft with pointed divaricate segments. *Corolla* deep blue: *tube* white smooth, constricted under the *faux*; *faux* wide, slightly plaited, narrowed close under the lips, smooth; *lips* nearly equal, *upper lip* furred on the outside straight concave obtuse notched at the end, *lower lip* 3-lobed flat smooth, middle segment rounded largest, side-ones oblong. *Filaments* the length of the corolla, white, upright after the pollen has been shed, stalked at the middle, connate at the lower broader part and sometimes augmented with an anther-shaped gland: *anthers* yellowish, upright, twin. *Style* the length of the upper lip, deep yellow, villous under the stigma: *stigma* 2-cleft, with unequal revolute segments. (From the latin of Baron Jacquin).



CROTALARIA vitellina.

Colville's Crotalaria.

DIADELPHIA DECANDRIA.

Nat. ord. LEGUMINOSÆ. Jussieu gen. 345. Div. V. Cor. irregularis papilionacea. Legum. 1-loc. 2-valv.=PAPILIONACEÆ. Brown in append. to Flind. voy. 2.

CROTALARIA. Suprà vol. 2. fol. 123.

Div. Foliis ternatis.

C. vitellina, pubescens; foliis ternatis, exstipulatis, foliolis ovali-lanceolatis acutis duplo longioribus petiolo hirtiùs villosò, lateralibus paulò minoribus: leguminibus pendulis.

Frutex villosus, gracilis, flexuosè diffusèque ramosus. Fol. sparsa, distantia, ternata, exstipulata? petiolo communi erecto, stricto, villosò-canescente, subunciali, unisulco, foliolis ovali-oblongis, lanceolatis, plus minus sesquiuncialibus, utrinque acuminatis, suprà nudiusculis v. ad venas tantùm pubentibus, infrà villosis pallentibus nervosis, lateralibus paulò minoribus, petiolis propriis brevissimis crassis hirsutis flexilibus (meris articulis). Racemi terminales, solitarii, erecti, stricti, multiflori, 3-5-unciales, pedunculo virenti cum pube fultâ, floribus laxiùs sparsis, deflexis, fulvo-flavescantibus longitudine infra semuncialem, pedicellis duplo brevioribus calyce teretibus decurvis bractea duplo brevior v. ultrâ lineari subulatâ villosâ deflexâ subtensis, unam v. et alteram minutam appressam altiùs in se gerentibus. Cal. virescens, fulvo-villosus, $\frac{1}{2}$ brevior corollâ v. circâ, ad $\frac{1}{2}$ partes usque 5-fidus, 10-nervis, tubo brevi fuscescente, segmentis æqualibus lanceolato-attenuatis bilabiato-patentibus. Vex. cordato-orbiculatum, secùs pedicellum reflexum, mucronatum, cum maculâ violaceâ radiato-crinitâ ad basin: ala vexillo carinâque duplo angustiores, conniventes, laminâ obtusiusculâ oblongâ obtusissimâ: carina falcata, ventricosissima, pallida, acuminata, apice virescens. Fil. monadelphum, medio tenùs 10-fidum, ungue tubuloso fissurâ dorsali in longum diviso: anth. flavæ, oblongæ, erectæ, à basi infixæ. Germ. pedicellatum, viride, sericeum, oblongum, compressum, poly-(10?)-spermum; stylus bis longior germine, virens, subulatus, supernè arrecto-inflexus, pro maximâ parte à latere interiore albo-barbatus: stigma penicillus erectus summam denudatam styli terminans indèque stipitatum comparens. Legum. pedicellatum, pallidum, viz unciale, oblongum, inflatum, appressè villosum, rigidomembraceum, stylo persistente caudato-acuminatum: semina plura, 2-4? (at non vidimus adulta.)

We are informed that this plant has been only lately introduced from the Brazils. We do not find it either in Sir Joseph Banks's or in Mr. Lambert's Herbariums; nor can we reduce it to any published species within our research.

The drawing was taken in the hothouse at the nursery of Messrs. Colville, in the King's Road, Chelsea, where the plant flowers freely and produces seed.

A small slender flexuately and diffusely branched villous *shrub* about 2 or 3 feet high in the samples we have seen. *Leaves* widely scattered, ternate, without stipules? *common petiole* upright straight furred scarcely an inch long, with a furrow, *leaflets* ovally-oblong, lanceolate, tapered at both ends, about $1\frac{1}{2}$ inch long or thereabout, smooth on the upper side except on the nerves and veins, covered with a grey nap at the under, side ones rather smaller than the middle one, *partial petioles* exceedingly short flexile (mere joints). *Racemes* terminal, solitary, upright, straight, 3-5 inches long, many-flowered, *peduncle* green with a roughish tawny nap; *flowers* loosely scattered, reddish yellow, reflexed, rather less than half an inch in length; *pedicles* single, twice shorter than the calyx, recurved, round, with a twice shorter deflexed linearly subulate villous *bracte* at their base with one or two other very small close-pressed ones situated higher up. *Calyx* tawny-green, villous, about $\frac{1}{4}$ shorter than the corolla or thereabouts, 5-cleft for about $\frac{1}{4}$ of the length, 10-nerved, with a shallow brownish tube and bilabately spreading lanceolately tapered equal segments. *Vexillum* (upper petal) cordately orbicular reflexed to the pedicle, mucronate (with a small distinct point) marked with a violet-coloured radiately bordered spot at the base: *alae* (side-petals) twice narrower than the vexillum and carina or more, connivent, cuneately oblong, rounded at the end: *carina* (the two lower petals conjoined) bloatedly falcate, taper-pointed, pale, green at the tip. *Filament* monadelphous, 10-cleft down to about the middle, tubular below with a dorsal fissure reaching to the base: *anthers* deep yellow, oblong, upright, inserted at the base. *Germen* green, short-stalked, silky, oblong, compressed, many (10?)-seeded; *style* twice the length of the germen, green, subulate, geniculately turned up, upright at the upper part and whitely bearded along the inner edge: *stigma* a small white pencil placed above the naked interval at the end of the style and appearing as if stalked. *Pod* pedicled, pale, scarcely an inch long, oblong, bloated, covered with a close-pressed fur, stiffly membranous, terminated by the permanent style: *seeds* 2-4?



ROSA gallica; α : *subvar. cuprea*.

Officinal Rose; α : *subvariety* "Tuscany Rose."

ICOSANDRIA POLYGYNIA.

Nat. ord. ROSACEÆ. Jussieu gen. 334. Div. II. ROSÆ.

ROSA. *Suprà* vol. 1. fol. 46.

Dic. VI. Centifoliæ. *Setigeræ*, armis difformibus; bracteatae. *Foliola oblonga v. ovata, rugosa. Discus incrassatus faucem claudens. Sepala composita.* Lindley monogr. 60.

R. gallica, armis subæqualibus conformibus debilibus, foliolis rigidis ellipticis, floribus erectis, sepalis (foliolis calycinis) ovatis, fructû subgloboso. *Lindley monogr.* 68. n. 41.

Rosa gallica. *Linn. sp. pl. ed. 2.* 2. 704. *Mill. ic. t.* 221. *fig. 2.* *Dict. ed.* 8. n. 20. *Du Roi herb.* 2. 263. *Allion. pedem.* 2. 139. *Thunb. jap.* 214? *Willd. sp. pl.* 2. 1071. *Rössig rosen. tt.* 17. 22. 25. *fig. 6.* 26. 28. 31. 36. 38. 39. *Persoon syn.* 2. 48. *Gmel. bad. als.* 2. 406. *Hort. Kew. ed. 2.* 3. 262. *Smith in Rees's cyclop. in loco.* *Redouté's roses.* 1. 73. t. 25.—135. t. 52.—2. 17. t. 7.—19. t. 8. 10.

Rosa cuprea. *Jacq. fragm.* 31. t. 34. *fig. 4*; (*subvar. hujus loci*).

Rosa belgica. *Brotero fl. lusit.* 1. 338.—blanda. *id. eod.*

Rosa holosericea. *Rössig rosen. t.* 16.—damascena rubro-purpurea. *id. eod.* t. 18.

Rosa rubra. *Lamarck fl. franç.* 3. 130.

Rosa sylvatica. *Gaterau montaub.* 94.

Rosier de Provins. *Regn. bot.*

Rosa centifolia. *Mill. dict. ed.* 8. n. 14. *Willd. sp. pl.* 2. 1071. *Persoon syn.* 2. 48.; (*non verò Linnæi quæ provincialis Milleri, &c.*)

Rosa n. 3. *Linn. cliff.* 191.

Rosa rubra, &c. *Bauh. hist.* 2. 34.

(β) *pumila*, floribus simplicibus, radicibus repentibus. *Lindley l. c.*

Rosa pumila. *Linn. suppl.* 262. *Jacq. austr.* 2. 59. t. 198. *Allion. pedem.* 2. 140. *Willd. sp. pl.* 2. 1072. *Persoon syn.* 2. 49. *Marsch. Bieb. fl.*

taur. cauc. 1. 397. *Hort. Kew. ed. 2.* 3. 263. *Pohl bohem.* 2. 172.

Wahl. cauc. 150. *Smith in Rees's cyclop. in loco.* *Rau enum.* 112.

Rosa olympica. *Donn cant. ed.* 8. 170.

Rosa austriaca. *Crantz austr.* 86. *Pollich palat.* 50.

Rosa repens. *Munch. hausv.* 5. 281.—hispidula. *id. eod.*

Rosa 1104. *Hall. herb.*

(γ) *arvina*, foliis utrinque nudis. *Lindley loc. cit.* 69.

Rosa arvina. *Krock. siles.* 2. 150. *Rau enum.* 106.

This universally admired genus, for ages the object of ornamental culture, has become so blended in our gardens by variation, that the accounts of the species are embarrassed by iterations and false synonyms, springing from the difficulty of arriving at genuine distinction in a maze of transitions obscured by an endless fluctuation of variety.

Difficulty has not however deterred Mr. Lindley from applying his talents and acquirements to a new illustration of the whole group in a Monograph from whence the above most valuable synonymy and ensuing account of the subject of this article have been borrowed, and which in the course of the current month will be ready for the public.

The present species is distributed by that gentleman under three principal varieties, branching within themselves into numerous subordinate ones or subvarieties, the technical discriminations of which may serve rather for the amusement of the florist than the occupation of the botanist, and are only noticed when the subjects are to be reduced, by means of synonymy, to places from which they may have been erroneously removed, as the present seems to have been by the late venerable botanist of Schœnbrunn. Why this has been called "Tuscany Rose" we are not told.

"Since *ROSA pumila* of Jacquin is to be considered as the wild state of this species, it ought perhaps to have been placed first rather than as a variety. In that case, however, the well-known name of *gallica* must have been given up for another, the knowledge of which scarcely extends beyond the country in which it grows wild.

"Switzerland and Austria produce it in the greatest abundance, but it has also been found in Asia by Bieberstein. Rau informs us that in the vicinity of Wurzburg it grows so copiously as to injure the corn exceedingly by its creeping roots, like *RUBUS cæsius* (the Dewberry). It is better known in our gardens by Donn's name of *olympica*, while the name *pumila* is improperly applied to *ROSA majalis*.

"The numerous double varieties known under the names of the Giant, Velvet, Bishop, &c. Roses are of the most exquisite beauty, and would be unrivalled in the vegetable world if accompanied by the fragrance which characterizes less brilliant species. The most splendid of them all is the Tuscany Rose.

"The *ROSA arvensis* of Krock's Flora Silesiaca differs, as Rau himself confesses, in little except having a smooth tube to the calyx and naked leaves.

"*ROSA gallica* has many points in common with *ROSA centifolia* (*provincialis* of the authors subsequent to Linnæus). They may be distinguished in any state by the stiff upright flowerstalks, want of large prickles, rigid leaves and smaller petals with shorter sepals (calycine leaflets) of the former; its mode of growth is more compact and stature generally less. Its leaves are moreover never edged with glands, which those of *centifolia* always are.

"Forskahl's *ROSA gallica*, which he mentions as growing at Constantinople as high as the houses, and with double white flowers, cannot possibly be this. Could he mistake *ROSA moschata* for it? which is known to be cultivated there." *Lindley monogr. loc. cit.*



GARDENIA florida; α : flore simplici.

Single-flowered Cape Jasmine.

PENTANDRIA MONOGYNIA.

Nat. ord. RUBIACEÆ. *Jussieu gen.* 196. *Div. IV.* Fructus monocarpus bilocularis polyspermus. *Stam.* 5. *Fol.* opposita; *caulis* sæpè frutescens.

GARDENIA. *Cal.* numero segmentorum varius. *Cor.* infundibuliformis. *Germ.* inferum, 1-loculare, *receptaculis* 2 v. pluribus, parietalibus, *ovula* numerosa affigentibus. *Bacca* 1-locularis, polysperma. *Embryo* directione varius. *Roxburgh MSS. (ex angl.)*

Div. Inermes.

G. florida, fruticosa, foliis ovatis, utrinque attenuatis; baccis elongato-turbinatis costis tot acutè prominentibus quot segmenta calycis. *Roxb. loc. cit. (ex angl.)*

Gardenia florida. *Linn. sp. pl. ed. 2.* 1. 305. *Mill. dict. ed. 8. n. 7.* *Thunb. diss. de Gardeniâ. n. 2.* *Ejusd. fl. jap.* 108. *Loureiro coch. 147;* (*sic speciminis archetypi Herb. banks. asservati*). *Hort. Kew. 1.* 293. *ed. 2.* 1. 368. *Willd. sp. pl. 1.* 1225. *Smith in Rees's cyclop. in loco.*

Arbuscula sinensis, Myrti majoris folio, vasculo seminali hexagono, ad singulos angulos alis foliaceis munito, quæ porrectæ vasculi coronam efformant, *Umki Sinensibus dicta. Plukn. amalth. 29.*

Frutex cynosbati fructu alato, tinctorio, barbulis longioribus coronato. Petiv. mus. 498. Ray hist. 3. 233.

Si vulgè Kutsjinas. Kämpf. amœn. exot. fasc. 5. 808.

(α) flore simplici.

Gardenia jasminoides. Solander in philosoph. trans. 52. 654. *tab. 20;* (*exemplario sicco desumpta*).

Umki, aliàs *Umuy*; cujus fructum ad colorem escarlatinum tingendum inservit; florem fert rosaceum, album, hexapetalum. *Plukn. amalth. 212. tab. 448. fig. 4.*

(β) flore pleno.

Gardenia jasminoides. Ellis in philosoph. trans. 51. 935. *tab. 23.*

Jasminum? ramo unifloro pleno, petalis coriaceis. *Ehret pict. tab. 15.*

Jasminum foliis lanceolatis oppositis integerrimis calycibus acutioribus. Mill. ic. tab. 180.

Catsjopiri. Rumph. amb. 7. 26. *t. 14. fig. 2.*

Frutex. *Germ.* turbinatum costis 5-6 acutè prominentibus, fundo 3-5-loculare, *suprà* 1-loculare. *Bacca oblonga, aurantiaca, glabra, magnitudine ovi columbini, costis 5-6 è segmentis calycinis, persistentibus decurrentibus angulata, 1-locularis: receptacula sæpius 4 de pariete interaneâ usque ad $\frac{1}{2}$ partem diametri cavitatis loculamenti prostantia, indèque in lobos 2 v. plures discedentia: sem. numerosa, pulpâ aurantiacâ nidulantia, subrotunda, subcompressa, rugosa. Roxb. l. c. (ex angl.)*

There is no published figure of this shrub from the living plant in the single-flowered state; but we find an engraving

of it in that state from a dried sample attached to the history of the species by Dr. Solander in the Philosophical Transactions; which has not however been cited in any subsequent book we have looked into.

Native of China, Cochinchina, and Japan. Cultivated very generally in the gardens of India. The single variety is of much later introduction amongst us, than the double one so highly prized in our collections for beauty and fragrance.

In the Hortus Kewensis, Otaheite has been numbered among the native places of the species; but we agree entirely with Sir J. Smith in regarding the South Sea plant, of which there is a fine drawing in the Banksian Library, as a distinct species.

"The original idea and characters of this genus are taken from *G. florida*, commonly called 'Cape Jasmine.' This was first brought to England by Capt. Hutchinson (of the Godolphin Indiaman), who about the middle of the last century, met with a bush of it in full flower, somewhere near the Cape of Good Hope, probably in a cultivated state. He brought the whole plant in a pot to England, and it was preserved in the collection of Mr. Richard Warner, (of Woodford Row, Essex,) a great cultivator of exotics. Mr. Gordon, the nurseryman, having obtained layers from the tree, propagated it so successfully, that he is said to have gained more than 500*l.* by the produce. It is now frequent in our gardens, treated as a stove-plant, though it chiefly requires great heat in the early spring to make it bloom, being at other times a hardy greenhouse plant. The flowers are of the size and aspect of a double *NARCISSUS poeticus*, with a sweet and very powerful scent resembling the flavour of ginger. They turn buff as they fade." *Smith l. c.*

The berries, which are full of an orange-coloured pulp, are used as a dye in China and Japan. The drawing was taken at Messrs. Colville's nursery, King's Road, Chelsea.

Dr. Roxburgh observes, that he has always found a small inflected toothlike process in the bottom of each fissure of the calyx, which shows best when the berry is ripe. He gives the following description of the fruit. "*Germen* turbinate, with 5-6 ridgelike angles, 3-5-celled at the base, 1-celled above, with 3-5 parietal receptacles to which numerous *ovula* are attached. *Berry* oblong, orange-coloured, smooth, the size of a pigeon's egg with 5-6 sharp-edged longitudinal angles the continuations of the permanent taper-pointed segments of the calyx, 1-celled."



R. W. K. del.

Pub. by J. Audsley 190

ARUM orixense.

Orissa Cuckow-point.

MONŒCIA POLYANDRIA.

Nat. ord. AROIDEÆ. Jussieu gen. 23. Div. I. Spadix spathâ involutus.

AROIDEÆ (includentes tam TYPHAS quam AROIDEAS Jussieu). Brown prod. 1. 333. Sect. I. Flores diclines; Perianthio (calyce nob.) nullo. Aroideæ veræ.

ARUM. Spatha monophylla, cucullata, basi convoluta. Spadix apice nudus, medio staminifer, antheris multiseriatis; basi femineus: sæpius Staminiibus pistillibus sterilibus fertilibus approximatis. Baccæ uniloculares, polyspermæ. Semina parieti altero inserta. Radicula umbilico obversa. Brown prod. 1. 335.

Div. Acaulia foliis simplicibus.

A. orixense, foliis hastato-tripartitis, spathâ pedunculatâ bicolori spadice longiore: apice lanceolato deflexo. Brown in Hort. Kew. ed. 2. 5. 309.

Arum orixense. Roxburgh MSS. cum tab. pict. ined. Andrews's reposit. 356. Brown prod. 1. 336. Carey hort. beng. in loc.

Perenne, acaule, radice tuberosâ subanfractuoso-rotundatâ, albâ, magnitudine circiter ovi pullastrini minoris, fibris circa gemmæ matricem crinitâ. Folia radicalia, petiolata, profundè trilobata, 8-10-uncialia, lobis ovatis acuminatis repandis nervo geminato peripheriæ proximè parallelo à parte supinâ circumdatis: petioli teretes erecti attenuati striati 12-unciales, basi convoluti-vaginantes. Scapus axillaris (subterraneus) pro tanto duntaxat elongatus ut spatham proximè extra humum sublevet. Spatha petiolis brevior striata erecta, intus rubro colorata, extus herbacea. Spadix basi (femineus) germinibus congestis indèque contiguo suprâ contextus filamentis sterilibus ramosis, medio antheris aggregato-circumstantibus extumescens, indè suprâ iterum filamentorum priorum consimilium annulo crinitus; clavâ nudâ coccineâ subulatâ spadicem totum reliquam æquante basi latiore subtusque concavâ terminatus. Roxb. MSS. (ex angl. versum).

The species has been observed by Dr. Roxburgh in the East Indies and by Mr. Brown in New Holland; and was introduced by Sir Joseph Banks in 1802; but still continues to be exceedingly rare in our collections. The drawing was taken by Mr. Herbert from a plant that flowered last autumn in the hothouse of his Botanic Garden at Spofforth, a source from which numerous rare plants are finding their way among the curious.

Among Dr. Roxburgh's unpublished drawings in the Banksian Library there is a coloured representation of this

plant done in India. From this we have borrowed the sketch of the spadix, to be seen by the side of the principal figure in our plate; and from the manuscript illustration of the drawing the following account.

“ Native of the shady Mango-Groves, &c. near Semulcotah, where the soil is pretty dry and fertile. *Root* perennial, tuberous, nearly round, white with small inequalities; surrounded by fibres at the top where the leaves and scape come out. *Stem* none. *Leaves* radical, petioled, deeply three-lobed, 8-10 inches across each way, lobes ovate, pointed, a little scalloped, smooth, with a double nerve at the under side near to and parallel with the margin: *petioles* erect, round, tapering, striate, about 12 inches long, sheathing and embracing each other at the base. *Scapes* axillary very short, just long enough to elevate the spathes above the ground. *Spathes* shorter than the petioles, striate, erect, red on the inside, herbaceously green on the outer. *Spadix* surrounded at the base with germens crowned (placed immediately below) many yellow branching (antherless) filaments; swelled in the middle with *anthers*; and above these a second row of barren filaments; *club* scarlet, as long as all the rest of the spadix, upright, tapered from a concave base to a point which is neither obtuse nor sharp.”

“ The roots when fresh are exceedingly acrid, more so than those of the Common Dragon (*ARUM Dracunculus*) or the Wake-Robin (*ARUM maculatum*) of Europe. The natives apply them in cataplasms to discuss or bring forward scirrhous tumours. They also apply them externally for the bite of venomous snakes; at the same time giving inwardly a piece about as big as a field-bean.”

The *Aroideæ* of Mr. Brown include the *Typhæ* as well as the *Aroideæ* of Jussieu, and are defined by a character, of which the following is intended for the english version.

Flowers spadiceously aggregated (collected together in a body upon a spadix); sometimes bearing the stamens and the pistils separate and usually naked; sometimes with a 4-6- seldom 3-parted calyx bearing both stamens and pistil. *Stamens* in the naked flowers aggregated, in those with a calyx opposite to the segments of the calyx and generally equal to them in number, with *anthers* that face outwards. *Germens*, in flowers where stamens and pistil are borne in separate ones, placed at the lowermost part of either the same

or a different spadix, aggregated: in those where the stamens and pistil are borne in one flower, solitary within the calyx, detached, 1-3-celled, 1-manyseeded, *ovula* upright, sometimes inverted or else inserted at the wall of the cell. *Style* either none, or simple. *Stigma* 1. *Seedvessel* close, either berried or else with a shell. *Seeds* with an albumen (perisperm), seldom (and then most probably only after germination has begun?) without. *Embryo* (rudiment of the future plant) in the axis of the albumen, straight, cylindrical, monocotyledonous (with one seed-lobe). *Radicle* (rosetel) obtuse, pointing towards the umbilicus of the seed, seldom the contrary way. *Cotyledon* (seed-lobe) cylindrical, having on one side (outwardly where the seedvessel is manyseeded) a short longitudinal cleft situated near the radicle. *Plumule* (plume) 2-3-leafletted, leaflets rolled inwards at the edge, the outermost one placed opposite to the cotyledon, embraced between the edges of the cleft belonging to that viscus, more or less uncovered and enfolding the inner mutually fronting ones. *Plants* either herbaceous or else suffrutescent. *Root* either tuberous or else thick and fleshy. *Leaves* sheathing, simple or compound, all usually upon the root. *Spadix* terminal, lateral, or radical, mostly only one and shrowded by a spathe; sometimes naked.

Mr. Brown observes that the only distinctive character that marks the order throughout, is afforded by the embryo, which is of a very different structure from that of any other of the vegetable groups comprised in the monocotyledonous class to which this order belongs.

ARUM belongs to the first section of its order, consisting of the genuine *Aroideæ*, with androgynous naked flowers; and has received a generic definition from Mr. Brown, of which the version is as follows. *Spathe* of one piece cucullate (cowled), convoluted at the base. *Spadix* naked at the top, bearing the stamens (consisting of numerous rows of anthers) in the middle, and the germen at the bottom: generally having barren stamens or barren pistils near to the fertile ones. *Berries* one-celled, manyseeded. *Seeds* inserted on one side of the loculament or cell. *Radicle* pointing towards the umbilical point of the seed.

It is suggested by the same author, that the genus will hereafter be to be divided into two, according to the structure of the germen which is manyseeded in some, and clearly

one-seeded in others. And he observes that it is still a matter to be investigated whether those appendages of the spadix always found near the anthers in genuine ARUMS (the ones with manyseeded fruit) are of course to be regarded as barren stamens, while on the other hand in the one-seeded species where they are contiguous to the germen they are consequently to be accounted as barren germen.

Orixense is known among its congeners, by hastate three-parted leaves, a peduncled two-coloured spathe longer than the spadix, lanceolate and deflexed at top.

N. In the last fasciculus, fol. 440, page 2, line 16, for "LEUCAJUM" read "LEUCOJUM;" in the last line of the second page of fol. 441, for "OLEA odoratissima," read "OLEA fragrans."



CHIMONANTHUS fragrans: β . *grandiflorus*.*Large-flowered Japan Allspice.*

ICOSANDRIA POLYGYNIA.

Nat. ord. CALYCANTHEÆ. *Lindley* *suprà* vol. 5. fol. 404.

CHIMONANTHUS. Stamina subæqualia, persistentia, 5 exteriora fertilia, maturitate basibus connatis faucem operientia. *Frutices (Japoniæ) ramis virgatis. Flores axillares, solitarii, odori, flavescentes, intus purpurei.* *Lindley* *suprà* vol. 5. fol. 404 in notâ ad calcem pag.

*Chimonanthus fragrans. Lindley MSS.**Calycanthus præcox. Lin. sp. pl. ed. 2. 2. 718. Willd. sp. pl. 2. 1120.**Hort. Kew. 2. 220. t. 10. ed. 2. 3. 282. Curtis's magaz. 466.**Obai s. Robai. Kæmpf. amæn. exot. 878. t. 879.*

(β) *grandiflorus*; floribus subrotundis majoribus: laciniis patentibus: exterioribus nunc margine crispatulis. *Lindley MSS.*

(α). *Frutex virgatus.* Rami oppositi, virgati, impubes, cortice pallide brunneo scabrello; ad nodos tumidi. Folia opposita, breviter petiolata, rigida, lanceolata, acuminata, plana, integerrima, scabra, venis primariis præcipue subtus pilosiusculis, *suprà* atro-viridia nitentia, *infrà* pallidiora. Flores post folia, odoratissimi, axillares, subsessiles, solitarii, cernui; bractee numerosæ, pilosæ, brunneæ, imbricatæ, superiores sensim majores, demum transeuntes in perianthium: foliolis impubibus, imbricatis, basi in tubo connatis, exterioribus ovalibus, concavis, obtusis, margine plano seu crispatulo, amene lutescentibus, semidiaphanis, interioribus unguiculatis, sensim minoribus, crassioribus, coccineis albedo-maculatis. Stamina faucē carnosā inserta, numero variabilia, sæpissimè 10, tum serie duplici; 5 exteriora fertilia, filamentis carnosis pilosiusculis, foliolis intimis breviora, ultra antheras positicas, ellipticas, adnatas, biloculares, longitudinaliter dehiscentes, lutescentes, medio semiseptiferas, producta: pollen sphaericum; interiora totidem paulò breviora, filiformia, pilosa, æqualia, styliorum longitudine. Stamina plura utriusque seriei quandòque superadduntur, sed hæc vel manca vel sitù irregularia. Ovaria (germina) receptaculo carnosio in basi tubi sessilia, unilocularia, impubia: ovulis duobus, verticalibus, adscendentibus, superiore citissimè obliterato; styli totidem, filiformes; stigmata simplicissima. Fructus oblongus, è tubo perianthii incrassati, velutinus, laciniis deciduis cicatrizatus, fuscus, staminibus persistentibus carnosus basi connatis (an semper?) coronatus, sapore terebinthino. Achenopses 1 v. 2 (5-6 ex Kæmpf.), oblongæ, brunneæ, nitidæ, basin versùs pilosæ, corneæ. Semen solitarium adscendens; testa papyracea, pallide brunnea; raphe crassa rectilinea axi fructus ad-versa; chalaza orbicularis. Embryo CALYCANTHI. *Lindley MSS.*

“ Under the article *CALYCANTHUS fertilis* in vol. 5. fol. 404, I have proposed to distinguish the *CALYCANTHUS præcor* of Linnæus as a separate genus, by the name of *CHIMONANTHUS*. The propriety of this measure has been confirmed by my subsequent observations. It differs very ma-

terially from the true CALYCANTHI, which are confined to North America, in having the fruit crowned by the persistent, recurved, fleshy stamens, which grow together and close up its orifice. The difference in number of stamens is also of importance, because in the present genus they are ten inserted in a double row; in CALYCANTHUS, on the contrary, 48 and inserted in four rows, the innermost being merely rudimentary; so that CHIMONANTHUS must not be understood as a reduced CALYCANTHUS, because, if it were such, its stamens would be twelve, or some such division of 48, and not ten; which is a division of 40. The *pericarpia* (*seedvessels*), moreover, are very numerous in CALYCANTHUS, and few in CHIMONANTHUS."

"There is some reason to suppose that two species are confounded under the name of CALYCANTHUS *præcox*, in the gardens. But as I have been unable to ascertain their limits satisfactorily, I shall confine myself to indicating in what the chief differences appear to consist. The one, which is that figured in the Hortus Kewensis and Curtis's Magazine, has greenish yellow flowers, of which the outer segments are even at the edge and scarcely spreading, and the inner ones dull purple; the other of which my figure in flower is a representation, has large, clear, yellow, roundish flowers, whose outer segments are sometimes curled at the edge and spreading, and inner ones bright red. I have not succeeded in detecting other differences, but am assured that the leaves of the large-flowered sort (which is cultivated in the collection of Comtesse de Vandes, at Bayswater) are rougher than those of the other, and of a lighter green. It is necessary to state, that the fruit and details of the plate all belong to the small-flowered kind."

"From the drawings of the Chinese I am disposed to believe that at least one more species exists among them, with very small yellow flowers. There is also, in an invaluable collection of Japanese wood-figures of plants in Sir Joseph Banks's library, a representation of what I am willing to consider a fourth species of CHIMONANTHUS, with smooth egg-shaped fruit, and a very stunted habit." *Lindley MSS.*

a, fruit of *C. fragrans*; (α); 1, stamens of the same with perianthium (calyx) torn off; 2, a section of the same; 3, a

section of an ovarium (germen); 4, fruit divided vertically; 5, an achenopsis; 6, the same divided vertically; 7, the seed; 8, the embryo; 9, the same divided transversely. *Lindley*.

This valuable article is a contribution by Mr. Lindley, as is also the fine drawing of the present unpublished variety (probably distinct species) as well as the representation of the fruit of the previously published variety and the masterly illustration of its constituent members, of which the figures of the minuter kinds are highly magnified.



NOTE.

The english generic name of *ARUM orixense* of the 450th article (see the fasciculus for last month) has been accidentally misprinted "*Cuckow-point*" for "*Cuckow-pint*."



ROSA parvifolia.

Burgundy Rose.

ICOSANDRIA POLYGYNIA.

Nat. ord. ROSACEÆ. Jussieu gen. 334. Div. II. Rosæ.

ROSA. Suprà vol. 1. fol. 48.

Div. VI. Centifoliæ. *Setigeræ, armis difformibus; bracteatae. Foliola oblonga vel ovata, rugosa. Discus incrassatus faucem claudens. Sepala (foliola calycina) composita.* Lindley monogr. 60.

R. parvifolia, nana, armis subæqualibus, foliolis rigidis ovatis acutis argutè serratis, sepalis (foliolis calycinis) ovatis. *Lindley monogr.* 70. n. 42.

Rosa parvifolia. *Ehrhart beytr.* 6. 97. *Willd. sp. pl.* 2. 1078. *Persoon syn.* 2. 50. *Smith in Rees's cyclop. in loco.*

Rosa remensis. *Desfont. cat.* 175. *Decand. fl. franç.* 4. 443. *Mer. par.* 191.

Rosa burgundiaca. *Rössig rosen. t.* 4. *Gmel. bad. als.* 2. 431. *Brotero flor. lusit.* 1. 339.

Planta fusca compacta cæsia: rami subglaucescentes, stricti, erecti, graciles, aculeis inæqualibus tenuibus subfalcatis setis parçè intermixtis armati. Folia surculorum adultiorum bis saltèm internodiis longiora, ramulorum novellissimorum confertissimè aggregata; stipulæ lineares, subnudæ, glandulis ciliatæ, lucidè virentes; petioli pilosi, aculeolis paucis robustis subtus armati, glandulosi; foliola 3-7, sæpissimè 5, parva, rigida, ovata, acuta, plana, subtilissimè et simpliciter dentata dentibus hinc glandulâ donatis, suprà saturatè opacèque virentia rugosa atque nuda, subtus cinereo-pallentia varicoso-venosa costâ mediâ pilosâ, par imum, cum paria trinis plura, plerumque exiguisimum. Flores solitarii, ramulis novellis exsuperati, ebracteati, purpurei, seriebus multiplicibus petalorum semper repleti; pedunculus depilis, setis paucis invalidis adpersus: calycis tubus ovatus, nudus; foliola (sepala) ovata cum acumine, subsimplicia, concava, reflexa, pilosa glandulisque adpersa, plurimùm breviora petalis: petala patentia, præter interiora partim germinibus provenientia arctissimeque imbricantia; styli pilosi, aliquantulum exserta, à pube suâ invicèm coherentes. *Lindley loc. cit. (ex angl. versum).*

Through the ingenious and instructive Monograph of the Roses with which Mr. Lindley has just presented the public, the history of that intricate group has been freed by sound criticism from the obscurity and ambiguity which have hitherto perplexed the study of it, and its bounds largely extended by newly observed and curious species illustrated by original descriptions and admirably characteristic figures.

The subject of this article is found under the section *Centifoliæ*, a section named after its assumed type the *Rosa centifolia* of Linnæus, of which the *Rosa provincialis* of suc-

ceeding writers is ably shown by Mr. Lindley to be an unguarded repetition, while the *centifolia* of the same authorities is proved to belong to the Linnean *gallica*. In this way *provincialis* becomes justly merged in *centifolia*. The section consists of *damascena*, *centifolia*, *gallica*, and *parvifolia*; and comprises in their varieties all the primeval favourites, as well as the kinds which afford the celebrated essential oil called "Attar of Roses." A hint is dropped by Mr. Lindley showing, that in his opinion, it is not improbable but that *centifolia* may have been the parent-stock of the entire section.

"This species forms a little dark, compact, blueish grey plant. *Branches* somewhat glaucous, straight, erect, slender, armed with unequal, scattered, slender, somewhat falcate prickles and a few setæ. *Leaves* on the strongest shoots at least twice as long as the joints, on the branchlets very densely aggregated; *stipules* linear, nearly naked, fringed with glands, bright green; *petioles* hairy, having at the back a few strong short straightish little prickles, glandular; *leaflets* 3-7, usually 5, small, stiff, ovate, acute, flat, very finely and simply toothed; *serratures* with a gland on one side, of a deep dull green, rugose, and naked above, pale ash-colour, with a hairy rib and prominent veins beneath, the lowest pair, when more than three, generally very small. *Flowers* solitary, overtopped by the young shoots, without bractæ, purple, always very double; *peduncle* naked; *sepals* (*calycine leaflets*) ovate with a point, nearly simple, concave, reflexed, hairy and scattered over with glands, very much shorter than the *petals*; these are spreading, except the inner ones, which are in part formed from the ovaria (germens) and very closely imbricated; *styles* hairy, a little protruded, and adhering by their down."

"I have little hesitation in distinguishing this particularly from *gallica* (see above, fol. 448), especially as I have the authority of the accurate and observing Ehrhart for doing so. It surely differs as much from that, as that does from *centifolia*; and as I have no varieties to enumerate of it, there is the less difficulty in finding characters that may be depended upon. I have seen it growing in the most sterile and the most fertile soils; yet without material alteration in its appearance, and most certainly without the slightest tendency to assume the characters of *gallica* (its nearest kin). M. Durand is reported, on the authority of M. Decandolle, to have found this wild on the mountains in the neighbourhood of Dijon." *Lindley monogr. l. c.*



Flora del.

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S. Walter.

PSORALEA *Onobrychis*.*Rough-podded Psoralea. Louisiana Saint-foin.*

DIADELPHIA DECANDRIA.

Nat. ord. LEGUMINOSÆ. *Jussieu gen.* 345. *Div. V.* Corolla irregularis papilionacea. Legumen 1-loc. 2-valve.=PAPILIONACEÆ. *Brown in append. Flind. voy.* 2.

PSORALEA. *Suprà vol.* 3. *fol.* 223.

P. Onobrychis, caule alto glabro; foliis ternatis, foliolis ovato-lanceolatis subpubescentibus, racemis (axillaribus) longè pedunculatis, secundis, legumine subovato muricato glabro, radice flagelliformi. *Nuttall gen.* 2. 104; *excluso Muhlenb. catal. (Ex angl. versum)*.

Stylosanthes racemosa. *Fraser's catalogue for* 1813.

Caulis spadiceo-fuscescens, 3-5-pedalis; ramis striato-angulosis villosis. Foliola 3-4-uncialia latitudine subduplo minore longè acuminata, utrinque punctata villosaque; petioli proprii villosi, foliolorum lateralium subminorum brevissimi, centralis semunciam longus v. magis triploque petiolo communi brevior; stipulæ parvæ lineari-subulatæ, erectæ, hirsutæ. Racemi plurimi, solitarii, confertius spicati, subæquales folio; spica subinterrupta, duplo brevior pedunculo densè villosa v. multò magis, pedicelli per binos? vel trinos? segregati pilosiores subbreviores calyce, deflexi, bractea singulâ lineari-subulata hirsuta, citò caduca ad basin cujusque fasciculi: flores parvuli, purpurascetes. Cal. turbinato-campanulatus, impunctatus, appressè villosus, duplo brevior corollâ, (10-nercis?) brevi-bilabiatus æqualis dentibus 5 acutis, labio superiore 2-dentato, inferiore 3-dentato. Corollæ petala omnia obtusa; carina brevior inclusa, (non vidimus recentem). Germ. oblongum, brevius calyce, compressum, utrinque attenuatum (subpedicellatum?) papillosum: stylus duplo longior, glaber, à medio cum angulo obtuso ascendens: stigma punctum subcapitellato-obtusum. Stam. diadelpa: filamentum alterum brevissimè 9-fidum: antheræ subrotundo-ovate acutulæ. (Legumen ex *Nuttall*, calycem exsuperans, monospermum, nigrum, tuberculis vehementer exasperatum).

A species observed by Mr. Nuttall on the banks of the river Merrimek, a few miles from St. Louis, in Louisiana. That botanist had not however seen the flowers before he recorded it, but ranked it in the present genus from the glandularly dotted foliage and the short one-seeded pod; observing at the same time that the plant had much the appearance of an *HEDYSARUM*, and naming it specifically after the *Onobrychis* (or Saint-foin plant) of that genus.

Seed was given by Mr. Nuttall to Mr. Lambert; and the plant raised in the gardens of Boyton House, whence the sample for the drawing was kindly sent to us during last summer.

Mr. Nuttall questions whether our plant may not be the *PSORALEA hedysaroides* of Muhlenberg's Catalogue; but there the flower is yellow.

A hardy tall-growing herbaceous perennial. *Stem* brown, 3-5 feet high; *branches* flutedly angular villous. *Leaves* ternate; *leaflets* ovately lanceolate, long-taper-pointed, slightly furred and glandularly dotted on both sides, 3-4 inches long, about half as broad, two side-ones somewhat smaller, all when dry of a heavy yellowish green; *common petiole* shorter than the leaflets; *lateral partial ones* very short, *central one* about half an inch long or more; *stipules* small, linearly subulate, upright, shaggy. *Racemes* many, axillary, solitary, equal to the leaves or thereabouts, *peduncle* thickishy furred, twice as long as the spike or more; *spike* somewhat broken, closish; *pedicles* scatteredly detached in pairs or triplets? thickishy furred, rather shorter than the calyx, deflexed, with a single linearly subulate shaggy quickly falling *bracte* at the base of each pair or triplet: *flowers* small, purplish red, sweet. *Calyx* turbinate campanulate, not dotted, close-pressedly furred twice shorter than the corolla (10-nerved?), shallowly 2-lipped, equal, with five pointed teeth, 2 to the upper lip, 3 to the under. *Petals* all blunt, the two of the *carina* enclosed by the *alæ*; (but we did not see the flowers while fresh). *Germen* oblong, shorter than the calyx, compressed, tapered at both ends (somewhat stalked?) papillary: *style* twice longer, smooth, bent upwards with an obtuse angle near the middle: *stigma* a small headed point. *Stamens* diadelphous; one filament very shallowly 9-cleft: *anthers* roundish, ovate, rather pointed. *Pod* (according to Mr. Nuttall) overtopping the calyx, one-seeded, black and extremely rough with tubercles.

NOTE.

The following synonym may be added to the *ASTRAGALUS caryocarpus* of fol. 176, vol. 2 of the present work;

Astragalus carnosus. Nuttall *gen.* 2. 100; (*non tamen Purshii speciem quandam SOPHORÆ cui perperam ex D. Nuttall fructum ASTRAGALI carnosii attribuerat intelligentis*).



PSORALEA melilotoides.

Melilot Psoralea.

DIADELPHIA DECANDRIA.

Nat. ord. LEGUMINOSÆ. Jussieu gen. 345. Div. V. Cor. irregularis papilionacea. Leg. 1-loc. 2-valv. = PAPILIONACEÆ. Brown in append. to Flind. voy. 2.

PSORALEA. Suprà vol. 3. fol. 223.

Div. Foliis ternatis.

P. melilotoides, foliis omnibus ternatis, foliolis lanceolatis, pedunculis folio longioribus spicatis: spicis lineari-lanceolatis, bracteis calyce longioribus. Solander MSS; (sub *P. Asphaltite*).

Psoralea melilotoides. Michaux bor. amer. 2. 58. Pursh amer. sept. 2. 475. Ventenat malm. 94. Curtis's magaz. 2063.

Psoralea Melilotus. Persoon syn. 2. 347.

Psoralea Asphaltites. Solander in Herb. & Sched. banksianis. Specimine spontaneo sicco assumpta.

Melilotus psoraloides. Nuttall gen. 2. 104.

Trifolium psoraloides. Walt. carol. 184.

Hedysarum leguminibus monospermis, foliis ternatis foliolis lanceolatis. Gron. virg. ed. 1. 87; (affirmante specimine archetypo Claytoni in Herb. Gronov. in Mus. banks. Hoc malè a Linnæo HEDYSARO violaceo, nunc LESPEDEZÆ violaceæ, pro synonymo adjunctum est.)

Melilotus flore violaceo, odore remisso. Clayton n. 103. (ex specim. archetypo).

Onobrychis (fortè) *Asphaltites* angustiori folio triphylo floribus purpureis spicatis ex terrâ marianâ. Pluk. mant. 140; (affirmante specimine Herbar. Pluknetiani pag. 133; fide Solandri).

Caulis angulatus, erectus, ramis caule brevioribus. Fol. alterna, ternata, petiolata: petiolo communi unciali: foliola lanceolata, obtusiuscula, subglabra sed punctis callosis utrinque adpersa, æqualia: impar longius à reliquis remotum quàm illa à basi (in superioribus, inferiora non vidi). Stipulæ lineares, lanceolatae, punctis adpersæ. Pedunculi è supremis alis, undè subterminales, foliis duplo v. triplo longiores. Flores subsessiles spicati: spica lineari-lanceolata. Calyces punctis glandulosis adpersi. Bractæe punctis magis callosis adpersæ, ovatae, acuminatae, floribus 3-plo longiores, eosque arcè includunt ante explicationem dum bractæe cadunt; valdè enim caducæ sunt. Soland. l. c. = Perennis, herbacea, pubescens. Racemus longissimè pedunculatus. Cal. varicoso-venosus. Cor. violaceo-pallens. Alæ duplo longiores carinæ v. ultrâ. Legumen monospermum, nudum, longitudine calycis, gibbosum, transversè rugosum, stylo persistente resupinato terminatum. Nuttall loc. cit. (ex anglico.)

By the inspection of the corresponding sample in the Claytonian Herbarium, from which the Flora Virginica was compiled by Gronovius, we are certain that our plant belongs to the species cited from the first edition of that work;

but at the same time we perceive that some confusion has been produced in the subsequent history of the species, from the plant having been erroneously identified by Linnæus with his widely distinct *HEDYSARUM violaceum*, and by the error having been adopted, instead of corrected, by Gronovius in the second edition of the *Flora Virginica*, where our plant (the one of the first edition) appears under the specific phrase by which Linnæus had distinguished *HEDYSARUM violaceum* in his *Species Plantarum*, while the right phrase of the first edition is in this postponed to the wrong one, and transferred to the synonymy. We have in consequence omitted all reference to the second edition of the *Flora Virginica*.

The species was taken up many years ago by the late Dr. Solander, under the specific title *Asphaltites*, from a spontaneous sample in the Banksian Herbarium. The description we have published from the manuscript, anxiously wishing to promulgate even the least unnoticed memorial of that accomplished pupil of Linnæus.

We are at a loss to conjecture why Mr. Nuttall should have displaced the species from this genus, with the assertion that it is not furnished with the glandules or calli, that denote an affinity to *PSORALEA*; the foliage of the plant being in fact covered with such.

The drawing was taken from a sample that flowered in the Sloane Square Nursery; the seed of which had been imported from Virginia, where the species is native, by Messrs. Frasers. It is a hardy herbaceous perennial. Not enumerated in the *Hortus Kewensis*.

Stem from a foot to a foot and a half high, angular, upright, roughishly furred. *Leaves* alternate; *leaflets* very slightly furred, glandularly dotted, lanceolate with a bluntish point, equal; *central partial petiole* on the upper leaves as long or longer than the *general one*; *stipules* linear, lanceolate, glandularly dotted. *Peduncles* from the axils of the upper leaves, hence in some sort terminal, twice or thrice the length of the leaves (4-6? inches long). *Flowers* racemosely spiked, shortly stalked, of a palish violet-blue: *raceme* linearly lanceolate (3-4? inches long), upright. *Calyx* pubescent, varicosely veined, and glandularly dotted. *Bractes* ovate, taper-pointed, three times the length of the flowers and enveloping them before they expand, after which they quickly fall off, dotted with glandules of a harder consistence than those of the other parts of the plant. *Alæ* twice the length of the very short *carina*. *Pod* one-seeded, the length of the calyx, gibbous, cross-wrinkled, not furred.



Smith. del.

Pub. by J. Ridgway 170. Facsimile May. 1. 1890.

Carew. sc.

CHRYSANTHEMUM indicum; δ . *superbum*.

Superb White Indian Chrysanthemum.

SYNGENESIA POLYGAMIA SUPERFLUA.

Nat. ord. COMPOSITE. Adanson fam. 2. 103.

CORYMBIFERÆ. Jussieu gen. 177. Div. III. Receptaculum nudum. Semen nudum seu non papposum. Flores radiati.

CHRYSANTHEMUM. Suprà vol. 1. fol. 4.

Chrysanthemum indicum. Character speciei cum synonymis suprà vol. 2. fol. 4. videndus.

We have been favoured with the following very useful communication from Mr. Sabine, the Secretary to the Horticultural Society. The description of the species and the synonymy have already been given in the fourth article of the first volume of the present publication.

“ Since the two varieties were figured in the fourth plate of the first volume of the Botanical Register, some fresh importations have added others to the number already known of this ornamental species, amongst which is the one now represented, which came from China in 1817. The drawing was made from a plant that flowered in the autumn of 1818 in the nursery of Messrs. Colville, in the King’s Road, Chelsea.

“ Although the colours into which the flowers of this species sport in China are many, yet it has so happened, that of the twelve varieties which are now established in this country, four are white: of these the plant represented in the annexed plate is by far the finest, the terminating flower of the corymb being frequently near four inches in diameter. The inflected direction of the florets sufficiently distinguishes this from the others. The tubular part of each floret enlarges towards the lip, which does not expand as in several others, but assumes a hollow shape in consequence of the contraction of its edges and apex. The following is a list of the varieties we have alluded to above:

α . Purple. *Bot. Mag.* 327.

β . Changeable White. *Bot. Mag.* 2042.

γ . Quilled White. *Bot. Reg.* 4.

- ✓ δ. Superb White. *Bot. Reg.* 455.
- ✓ ε. Tasselled White.
- ✓ ζ. Quilled Yellow.
- ✓ η. Sulphur Yellow.
- ✓ θ. Golden Yellow. *Bot. Reg.* 4.
- ✓ ι. Large Lilac.
- ✓ κ. Rose or Pink.
- ✓ λ. Buff or Orange.
- ✓ μ. Spanish Brown.

“Many others are described in different accounts of Chinese plants, as well as represented in drawings of unquestionable authority, some of them much excelling in beauty and splendour any of those above enumerated. We understand that Messrs. Barr and Brookes have, amongst other valuable novelties, obtained three new kinds by their late spirited mission of a gardener to Canton; and the Horticultural Society have also imported several in the last season, which will still further increase the number of varieties.” *Sabine.*

The drawing was taken at the nursery of Messrs. Colville, King's Road, Chelsea.



N. F. & A. S. 1845

Nymphaea pinnatifida Th. Maxon, May 1, 1845

N. F. & A. S. 1845

VIBURNUM odoratissimum.

China Laurestine.

PENTANDRIA TRIGYNIA.

Nat. ord. CAPRIFOLIA. *Jussieu gen.* 210. *Div. III.* Calyx bracteatus. Stylus nullus: stigmata 3. Cor. monopetala.

VIBURNUM. *Suprà vol. 5. fol. 378.*

V. odoratissimum, sempervirens, glabrum; foliis coriaceis elliptico-oblongis, distantèr subdentatis margine reflexo: thyrso omninò hermaphrodito brachiato, ramulorum pedunculis trichotomo-pedicellatis.

Frutex sempervirens, erectus, glaber, ramis teretibus robustis punctis exstantibus, verruculatis. Fol. opposita (modò verticillato-trina), coriacea, patentia, elliptico-oblonga, distantèr nervosa, margine subtili cartilagineà reflexà obsolete distantèrque dentatà vel interdum subintegrà, petiolum versùs attenuata, acumine brevi obtusulo apiculata, subtili pallentia, juniora lucidè letèrque virentia, seniora opaciora, majora nunc 5-uncialia latitudine fèrmè 3-unciali: petiolus ad maximum $\frac{1}{2}$ uncie longus. Thyrsi terminales brachiato-decompositi, stricti, laxius numerosiflori, subtriunciales, glabri, patentes bracteati, ramulis in pedunculos trichotomo-pedicellatos terminantibus: pedicelli proprii brevissimi crassi basi cicatrice dilapsæ bracteæ profundè notati; bracteæ sphacelatæ, acuminatæ, caducæ; pedicellorum minimæ. Cal. minutus, campanulatus, rotundatè 5-lobulatus, pallidus. Cor. carnosula, turbinato-rotata, alba, caduca, lutescentèr-emarcescens: tubus triplo longior calyce vel magis fauce dilatatà; limbus sublongior tubo, revolutò-reflectendus, laciniis rotundatis convexis. Fil. tubo adnata, laciniis corollæ alternæ, divaricata, æqualia limbo, subulata, alba, stricta, persistentia: anth. incumbentes, oblongæ, bilobæ, lobis linearibus basi sagittatò-distinctis: pollen ochroleucum. Germ. disco glanduloso depresso viridi orbiculato fundo calycis delitescente insidens, virens, conicum, æquale calyci, rotundatè trigonum, tubo corollæ inclusum, stigmate obsolete tricollis continuo pallido pruinoso apiculatum.

A handsome evergreen shrub, with blossom scarcely inferior in fragrance to that of the well-known Sweet Olive of India (*OLEA fragrans*). The species is of recent introduction, and said to be native of China. It does not appear to have been recorded. The plant from which the drawing has been taken was kindly sent to us by Sir Abraham Hume from the collection at Wormleybury, where it flowered last February for the first time in this country. It has been treated till now as a hothouse plant, but will probably be found to flower more freely when it shall have been treated less tenderly. We saw fine strong samples of it in the stove

at Messrs. Colville's, of the Chelsea Nursery in the King's Road; but none of them have yet been brought to flower.

A handsome upright smooth evergreen *shrub*; *branches* round, robust, beset with small warts. *Leaves* opposite (sometimes in whorls of three), coriaceous, spreading, elliptically oblong, widely nerved, with an extremely narrow cartilaginous reflexed edge obsoletely and widely toothed or sometimes nearly entire, tapered towards the petiole, shortly and bluntly pointed at the top, young ones of a bright lively green, old ones darker and duller, the larger ones about 5 inches long by 3 broad: *petiole* at most about $\frac{1}{4}$ of an inch in length. *Thyrse* terminal, brachiately decomposed, stiff, loosishly and numerously flowered, about 3 inches long, smooth, spreading, bracteate, branchlets terminating in trichotomously stalked peduncles: *partial pedicles* very short thick with a deep scar at the base from the falling off of the bracte: *bractes* sphacelate, taper-pointed, caducous, those of the pedicles in minute. *Calyx* minute, campanulate, roundedly 5-lobed, pale. *Corolla* rather fleshy, turbinate rotate, white, caducous, turning yellow or buff as it fades; *tube* 3 times the length of the calyx or more, with an open dilated orifice; *limb* rather longer than the tube, revolutely reflexed in the end, segments rounded convex. *Filaments* adnate to the tube, alternate with the segments of the corolla, divaricate, equal to the limb, subulate, white, stiff, permanent: *anthers* incumbent (or lying across the point of the filament), oblong, two-lobed, lobes linear sagittately parted at the base: *pollen* cream-coloured. *Germen* placed upon a green orbicular glandular insunk disk at the bottom of the calyx, green, conical, equal to the calyx roundedly 3-cornered, inclosed in the tube of the corolla, surmounted by continuous pale frosted triple-knobbed *stigma*.

NOTE.

In the article *VIBURNUM rugosum* of the 376th article of the fifth Volume of this Register, we have omitted to insert the following synonym of that species.

Viburnum rigidum. *Ventenat malin*. 98.



Hand. del.

Pub. by S. Poirson 1703. Borealis. May. 1. 1820.

S. W.

LUPINUS mexicanus.

Mexican Lupine.

DIADELPHIA DECANDRIA.

Nat. ord. LEGUMINOSÆ. Jussieu gen. 345. Div. V. Corolla irregularis papilionacea. Stam. 10. diadelphea. Legum. uniloculare bivalve. Frutices aut herbe; folia simplicia aut ternata aut rarius digitata; stipulæ subnullæ, nunc conspicuæ imo petiolo adnatæ aut ab eodem distinctæ.=PAPILIONACEÆ. Brown in append. to Flind. voy. 2.

LUPINUS. Calyx 2-fidus laciniis integris aut dentatis. Carina basi bipartita. Stamina basi monadelphæ; antheris 5 subrotundis, 5 oblongis. Legumen coriaceum oblongum polyspermum. Herbe; folia digitata, stipulis imo petiolo adnatis; flores spicati terminales, in spicâ alterni aut subverticillati, nudi aut bracteati. An LUPINUS integrifolius Linnæi affinior CROTALARIA? Juss. loc. cit. 354.

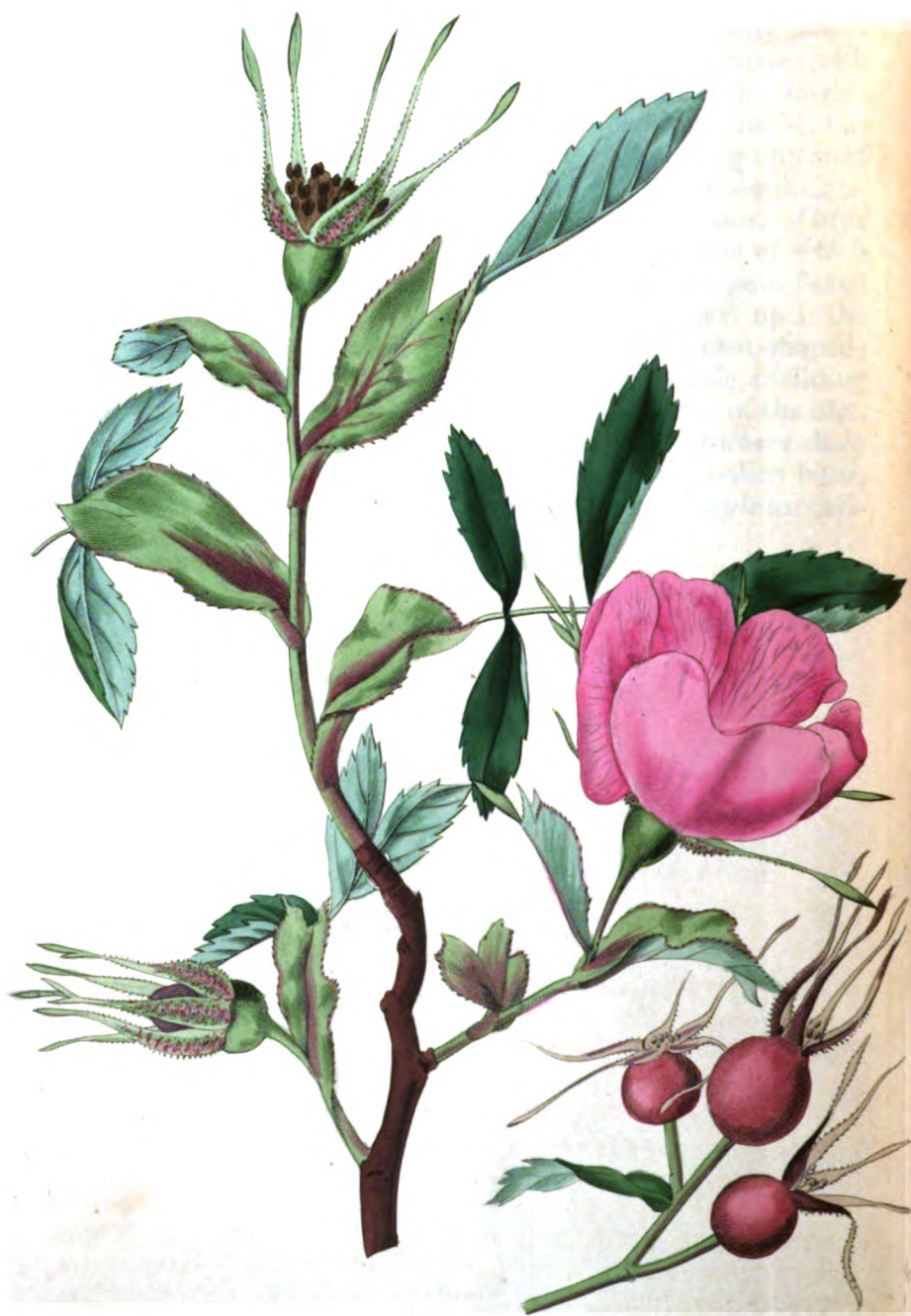
L. mexicanus, calycibus alternis appendiculatis labio superiore semibifido, inferiore obscure 3-dentato. Lagasca gen. et sp. pl. 22.

Planta præter corollam omnino molli-pilosa. Foliola 3?-5?-7-8, elongato-cuneata, angusta acumine brevi, longè deorsum attenuata, suprâ nuda, infrâ pilis sericeis albicantia, longiora biuncialia, petiolis pilosis breviora; stipulæ subulato-lineares erectæ pilosæ. Racemi spicatum elongati, laxius multiflori, floribus sparsis purpureo-cærulescentibus venis saturatioribus pictis, antè anthesin bracteosi: pedunculus (ex Lagasca) oppositifolius; pedicelli hirsuti, ascendentes subbreves calyce: bractæ lineari-subulatæ, angustissima, longiores calyce, caducæ. Cal. hirsutus, viridis, labiis divaricatis, summo emarginato-fisso. Vex. con duplicato-reflexum, ex imi disciplicâ margines supremas alarum infernè equitans; alæ dolabriformes, acutæ, à marginibus anticis coherentes; carina pallens, ascendens, angusta, subulato-falcata, longitudine alarum, acumine longiusculo saturatè violaceo. Antheræ flavæ, alternæ tardiores lineares, alternæ præcociores subrotundæ. Germ. setoso-pilosum: stylus assurgens penicillo stigmatoso terminatus.

A handsome species, lately introduced into the Botanic Garden at Madrid from Mexico. Its seed was sent by M. Lagasca to Mr. Lambert; and from this the present plant was raised in the garden at Boyton House, where it flowered last February in the stove. Probably biennial? but its duration has not been yet ascertained amongst us. In Mr. Lagasca's opinion it comes nearest to *LUPINUS Ther-mis*, an egyptian species.

The whole plant, except the corolla, is more or less beset with a long soft pile. Leaflets 3?-5?-7-8, cuneately elongated, narrow, shortly taper-pointed, tapered for a considerable way downwards, naked, rendered white underneath by

their silky fur, the longest about two inches in length, shorter than the long-piled petioles; *stipules* subulately linear, upright, long-piled. *Racemes* spiked and long, widishly many-flowered; *flowers* scattered, of a purplish blue colour with deeper streaks, bracteose (or intermixed with longish bractes) before they open: *peduncle* (according to M. Lagasca) opposite to its leaf; *pedicles* shaggy, inclining upwards, somewhat shorter than the calyx: bractes linearly subulate, extremely narrow, longer than the calyx, caducous. *Calyx* shaggy, green, with divaricatè lips, the upper one of which is split at the end into a notch. *Vexillum* foldingwise reflexed placed astride by the deep plait at the lower part upon the upper edges of the alæ; *alæ* dolabrimform (hatchet-shaped) pointed, cohering by their front edges; *carina* pale, inclining upwards, narrow, subulately falcate, the length of the alæ, with a longish deep violet tapered point. *Anthers* deep yellow, alternate ones linear and shedding their pollen later, the other 5 round. *Germen* setaceously furred: *style* ascending, terminated by a pencilled *stigma*.



S. Locking. Copy. 1820.

Painted by J. Ridgway 176. Providence June 1. 1820.

J. Waller.

ROSA fraxinifolia.

Newfoundland Rose.

ICOSANDRIA POLYGYNIA.

Nat. ord. ROSACEÆ. Jussieu gen. 334. Div. II. Rosæ.

ROSA. Calycis tubus urceolatus carnosus achenia plurima hirsuta includens. Receptaculum villosum. Lindley monogr. xxri.

Div. IV. Cinnamomeæ. Setigeræ, v. inermes, bracteata. Foliola lanceolata eglandulosa. Discus tenuis (nequaquam incrassatus). Lindley monogr. 13.

R. fraxinifolia, elatior inermis, ramis strictis glaucescentibus, foliolis opacis undulatis impubibus. Lindley monogr. 26. n. 17.

Rosa fraxinifolia. Bork. holz. 301. Gmel. bad. 2. 413.

Rosa alpina. β. Hort. Kew. ed. 2. 3. 265.

Rosa alpina lævis. Redouté's roses. 1. 67. t. 19.

Red alpine rose. Miss Lawrance's roses. t. 75.

Rosa corymbosa. Bosc dict. d'agr.? Desfont. cat. hort. paris. 272?

Rosa blanda; α. Solander MSS. Jacq. fragm. 70. t. 105.

Rosa virginiana. Mill. dict. ed. 8. n. 10.

Rami erecti, inermes, fusco-purpurei, rore cæcio cerino obducti; sureuli radicales aculeis paucis setiformibus debilibus ad basin muniti. Folia opaca, omnino impubia; stipulæ latæ, extrema versus plurimum dilatata, planæ, serrulata; petioli inermes; foliola 5-7 lanceolata, simpliciter serrata, supra incanescenti-virentia, infra glauca. Cymæ paucifloræ, floribus parvis rubris; bracteæ ellipticæ, nudæ, fimbriatæ atque denticulatæ; pedunculi breviores foliis, nudi; tubus calycinus depresso-globosus, incanus, nudus; sepala (foliola calycina) ovata, integra acumine longo, dorso hispidata; petala obcordata, subconniventia; discus non distinctus; styli villosi. Fructus parvus, globosus vel ovatus, opacè et pallidè rubens, nudus. Lindley monogr. loc. cit. (ex anglico versum).

" In appearance and size resembling *Rosa cinnamomea*. Branches erect, unarmed, dark purple, covered with a pale blue, waxen bloom; rootshoots with a few weak setiform prickles at their base. Leaves opaque, entirely free from pubescence; stipulæ broad, much dilated towards the extremities, flat, serrulate; petioles unarmed; leaflets 5-7, lanceolate, simply serrate, greyish green above, glaucous beneath. Flowers small, red, in few-flowered cymes; bracteæ elliptical, naked, fringed and toothletted; peduncles shorter than the leaves; tube of the calyx depressedly globose, grey—these last quite naked; sepals ovate, entire, with a long point, hispid at the back; petals obcordate,

somewhat converging; *disk* not distinct; *styles* villous. *Fruit* small, round or ovate, dull pale red, naked."

"I have already (under *Rosa blanda*) attempted to explain why this, the original *Rosa blanda*, should not now be distinguished by that appellation. In determining on another for it, I have thought it right to take the oldest, excepting Miller's, for which probably no one will contend. The description of Bosc's *Rosa corymbosa* answers so closely to this species that I have few doubts of the propriety of citing it here. So little reason was there to suppose this to be a variety of *Rosa blanda*, that, in the last edition of the *Hortus Kewensis*, it has actually been considered as not distinct from *Rosa alpina*."

"Gathered in Newfoundland by Sir Joseph Banks."

"The want of prickles distinguishes this from most of the section. *Rosa blanda* when unarmed, as it often is, is readily known by the downy stalks of its leaves. *Cinnamomea* in a similar state may be recognized by the same character, with the addition of the majority of its leaves on its stipules being inflexed at the edge, not reflexed." *Lindley monogr.* 26, 27.

The drawing for this article was kindly contributed by Mr. Lindley; from whose able Monograph of the genus the above synonymy and account of the species have been borrowed.



2

CARICA Papaya; *fœmina*.*Papaw Tree*; fertile flowered plant.

DICECIA DECANDRIA.

Nat. ord. CUCURBITACEÆ. *Jussieu gen.* 399. *Div. V.* Genera Cucurbitaceis affinia, germine supero præcipuè distincta.

CARICA. *Cal.* minimus 5-dentatus. **MASC.** *Cor.* monopetala tubulosa infundibuliformis, limbo 5-lobo. *Stam.* fauci corollæ inserta; alterna filamentis duplo brevioribus, calycinis laciniis opposita; *anth.* erectæ oblongæ. **FÆM.** *Cor.* 5-partita. *Germ.* superum oblongum; *styli* 5 breves; *stigmata* dilatata compressa, cristata. *Bacca* maxima cucumerina aut ovata, 5-sulcata, oblonga, intus pulposa 1-loc. ad parietes 5-placentaris polysperma; *sem.* numerosa, arillata, *arillo* testam fragilem rugosam 1-spermam obvolvante. *Embryo* planus in albumine compresso carnosus oleoso. *Arbores* succo lactescente glutinoso, ligno fungoso lævi, trunco indiviso aut rariùs ramoso, subspinoso aut sæpiùs inermi et pristinorum foliorum vestigiis tantum scabro; fol. terminalia conferta alterna longè petiolata, digitata aut sæpiùs palmata et subtus in nervorum concursu subsquamulosa; flores axillares, **MASCULI** in longis pedunculis racemosi penduli aut erecti, **FÆMINEI** pedunculo crassiori breviori et paucifloro insidentes; quidam interdum **HERMAPHRODITI** in fœmineis arboribus observante Trewio, in masculis memorante Comersonio; fructus esculentus peponiformis. *Juss. l. c.* (sub PAPAYÀ).

C. Papaya, foliis palmatis septemlobis, lobo intermedio sinuato, laciniis oblongis acutis, floribus masculis corymbosis. *Willd. sp. pl.* 4. 814.

Carica Papaya. *Linn. sp. pl.* 2. 2. 1406. *Mill. dict. ed.* 8. n. 1. *Hughes barbad.* 181. 14, 15. *Hort. Kew. ed.* 2. 5. 399. *Smith in Rees's cyclop. in loco.* *Kunth nov. gen. et spec.* 2. 99.

Papaya vulgaris. *Lamarck illustr. tab.* 821.

Papaya Carica. *Gærtn. sem.* 2. 191. t. 122. fig. 2.

Carica fronde comosa, foliis peltatis: lobis variè sinuatis. *Browne jam.* 360. *Arbor Platani folio*, fructu *Peponis* magnitudine eduli. *Merian surinam.* 40. t. 40. et tabb. 62, 64.

Papaya-maram. *Rheede mal.* 1. 23. t. 13. fig. 1. ♀.

(**MAS.**) *Ambapaya.* *Rheede mal.* 1. 21. t. 15. fig. 2.

Papaya mas. *Ekret pict. t.* 3. fig. 1. *Rumph. amb.* 1. 145. tt. 50. 51.

(**FÆM.**) *Papaya* fructu oblongo melonis effigie. *Trew ehret. t.* 7.

The separate flower and pistil at the bottom of the annexed Plate are represented of the natural dimensions, but the principal figure is diminished in the proportion which these flowers bear to those in their places on the plate, that the general appearance of the tree might be shown in our page.

The drawing was taken from a sample produced in the Duke of Northumberland's garden near Brentford, where

the plant was cultivated in the bothouse. The present individual belonged to the fertile-flowered side of the species, which is dioicous. The flowers of the barren side of the species are very different, but these we have not yet met with. The genus is placed, by Jussieu, as an anomalous associate among the *Cucurbitaceæ*. It has a superior germen, instead of the inferior one of the genuine members of the order.

The following account of the species is borrowed from that by Sir J. Smith in Rees's Cyclopaedia.

“Somewhat the habit of a Palm. *Root* perpendicular, whitish, spongy, of a disagreeable taste and smell. *Stem* twenty feet high, a foot thick, naked almost to the top, marked almost its whole length with the scars of fallen leaves, of a tender substance like that of the Banana, solid towards the base, hollow in its upper part. *Leaves* on *petioles* near two feet long, the lower ones almost horizontal, upper ones erect, deeply divided into 7, 9, or 11 sinuated gashed lobes, alternate, near together. *Flowers* axillary, white, sweet-scented; *barren ones* in slender, pendulous racemes, 2 or 3 feet long; *pedicles* short; *fertile-flowered ones* numerous on short simple peduncles. *Fruit* about the size of a small Melon; various in its form, sometimes angular and flattened at both ends, sometimes oval or round, and sometimes pyramidal, yellow when ripe, containing a yellow succulent pulp of a sweetish taste and aromatic smell. It is seldom eaten raw, but, when boiled, is esteemed a wholesome sauce to any kind of fresh meat. It is also sometimes pickled in vinegar, and is frequently preserved in sugar, and sent to Europe with other tropical sweetmeats. When ripened in our stoves, it does not acquire its proper flavour, and is even said by Miller to be detestable. The whole plant abounds with a milky acrid juice. Barren flowers are occasionally found on the fertile-flowered plants, and *vice versd*. A native of both the East and West Indies. The *ANNONA triloba*, trifid Custard-Apple, is also called the Papaw-Tree in the southern states of North America.”

Grown in 1690, at the Royal Garden at Hampton Court.

Said by Messrs. Humboldt and Bonpland to be cultivated over the whole of South America.

We shall insert in this place some instructive observations, relating in part to the subject of the present article, from Mr. Brown's View of the Botany of Congo.

"It is particularly deserving of attention, that the greater portion of the plants now enumerated, as cultivated on the banks of the Congo, and among them nearly the whole of the most important species, have probably been introduced from other parts of the world, and do not originally belong even to the continent of Africa. Thus it may be stated with confidence that the Maize, the Manioc or Cassava, and the Pine Apple, have been brought from America, and probably the *Papaw*, the Capsicum, and Tobacco; while the Banana or Plantain, the Lime, the Orange, the Tamarind, and the Sugar-Cane, may be considered as of Asiatic origin."

"In a former part of this essay, I have suggested that a careful investigation of the geographical distribution of genera might in some cases lead to the determination of the native country of plants at present generally dispersed. The value of the assistance to be derived from the source referred to, would amount to this; that in doubtful cases, where other arguments were equal, it would appear more probable that the plant in question should belong to that country in which all the other species of the same genus were found decidedly indigenous, than to that where it was the only species known to exist. It seems to me that this reasoning may be applied with advantage towards determining the original country of several of the plants here enumerated, especially of the Banana, the *Papaw*, the Capsicum, and Tobacco."

"Thus, the *Papaw* (*CARICA Papaya*) may be regarded as of American origin; there being several other decidedly distinct species natives of that continent, while no species except the cultivated *Papaw*, nor any plant nearly related to this singular genus, is known to exist either in Asia or Africa. But in the present case, the assistance derived from the argument adduced may be considered as unnecessary; for the circumstance of there being no Sanscrit name for so remarkable a plant as the *Papaw*, is nearly decisive of its not being indigenous to India. And in the Malay Islands, the opinion of the inhabitants, according to Rumphius, is that it was there introduced by the Portuguese."

“ It is certainly not meant, however, to employ this reasoning in every case; and in opposition to all other evidence; and instances may be found, even among the alimentary plants, where it is very far from satisfactory. Thus the Cocoa Nut, though it will probably be considered as indigenous to the shores and islands of equinoctial Asia, is yet the only species of its genus that does not belong exclusively to America.” *Brown obs. on Herb. of the Congo.*



POLEMONIUM mexicanum.

Greek-Valerian of Mexico.

PENTANDRIA MONOGYNIA.

Nat. ord. POLEMONIA (recentius POLEMONIDÆE). Jussieu gen. 136.

POLEMONIUM. Cal. urceolatus, 5-fidus. Cor. rotata, tubo brevi, limbo 5-fido (regulari). Stamina filamenta (medio corollæ tubo inserta) basi latiora: antheræ incumbentes. (Caps. calyce persistente cincta, 3-locularis, 3-valvis, polysperma, valvis medio septiferis seu costâ prominente instructis, receptaculo s. dissepimento centrali trigono valvularum septis angulatum applicito). Herbæ erectæ; folia alterna pinnata; flores corymbosi terminales. Juss. l. c.

P. mexicanum, foliis pinnatis polyphyllis, terminali trilobo: floribus cernuis: calycibus villosis-viscidis. Lagasca elench. append. 10.

Herbacea, biennis, erecta, viscoso-villosa, sesquipedalis v. ultra, caule striato-tereti, alternè remotèque folioso, supernè paniculato ramulis axillaribus apice aggregatim pauci-(2-4-)floris summis in pedunculos unifloros abeuntibus, infernè ad articulos vaginâ brevi membranaceâ cincto. Fol. erectiuscula, multi-(12-13-)pinnata foliolis angustè decurrentibus ovato-oblongis acutis. Cal. villis viscosis subhirsutiis pubescens, cylindrico-campanulatus, persistens, segmentis brevibus angulato-ovatis, ad imum divisurarum angulum glanduloso-lutescentibus. Pollen vitellino-flavescens. Germ. conicum, torulosum, glabrum, obtusum: stylus filiformi-clavatus: stigmata 3 ligulato-lobata, obtusula, replicato-patentia. Caps. calyce inclusa.

In the capsule of the *Polemonidæe* the angles of the receptacle of the seed (which is central) come in contact with the valves at the partition borne along the middle; and by this circumstance the order has been technically distinguished from the *Convolvulaceæ*, where the angles of the receptacle come in contact with the outermost edges of the valves; characters mutually influencing the general habits of the two orders they distinguish.

The present species was sent by Professor Cervantes from the Botanic Garden at Mexico to Madrid, where it flowered, according to M. Lagasca, in 1815. The plant that afforded the drawing was raised in the hothouse at Boyton from seed received from Madrid by Mr. Lambert, and flowered last autumn for the first time in this country, when it was kindly transmitted to our draughtsman.

A herbaceous upright clammy biennial plant, about a foot and a half high; stem round, fluted, alternately and

widely leaved, encircled at the lower joints by a short membranous sheath; paniculately divided at the upper part; *branchlets* axillary fasciculately few (2-4)-flowered at the end, uppermost ones passing gradually into one-flowered peduncles. *Leaves* pointing upwards, multi-(12-13)-pinnate, *leaflets* ovately oblong, pointed, narrowly decurrent along the sides of the common *petiole*. *Calyx* hirsutely furred, pile clammy, cylindrically campanulate, permanent; segments short angularly ovate, with a glandular yellow spot at the bottom of the fork that separates them. *Pollen* reddish yellow. *Germen* conical, full of knobs, smooth, obtuse: *style* clavately filiform: *stigmas* 3, ligulately lobe-shaped, bluntish, reflexed and spreading. *Capsule* enclosed within the calyx.



RUBUS reflexus.

Canton Bramble.

ICOSANDRIA POLYGYNIA.

Nat. ord. ROSACEÆ. Jussieu gen. 334. Div. IV. Germina plura indefinita, verè supera, receptaculo communi imposita, singula monostyla. Semina totidem nuda aut rariùs baccata. Herbæ aut rariùs frutices. POTENTILLÆ.

RUBUS. Cal. patens, 5-fidus. Pet. 5. Stam. numerosa brevita. Sem. numerosa baccata, supra receptaculum commune densè collecta in baccam compositam. Frutices aculeati vel quandòque inermes, rariùs herbæ semper inermes, fol. simplicia aut ternata aut digitata, aut pinnata in RUBIS quibusdam Commersonianis habitù similibus ROSÆ; flores terminales aut et rariùs axillares, racemoso-paniculati aut rariùs solitarii, in R. odorato corymbosi et abortù dioici. R. Chamamorus sub terrâ monoicus et extùs dioicus, radicibus maris et feminae junctis, caulibus distinctis, observante post Eolandrum Linnæo. Juss. l. c. 338.

Div. Frutescentes.

R. reflexus, ramis teretibus, foliis oblongis cordatis lobatis lobo antico maximo ovato-elongato acuminato, infernè subcruciato-repandis, stipulis bracteis-que pectinatis, paniculis solitariis axillaribus paucifloris brevioribus petiolo, reflexis.

Rubus moluccanus. Aiton's Epitome 373? Sweet hort. sub. (non aliorum).

Frutex sarmentosus, exceptis corollâ facieque supinâ foliorum, undèque tomentosus; ramis longissimis petiolis pedunculisque lanato-tomentosis, aculeis reversis fulvis armatis. Fol. palmaria ad dodrantalia, transversè $\frac{1}{2}$ angustiora vel circitèr, serrata, à supino virentia tessellato-rugosa nudiuscula ad nervos pilosiuscula, à prono tomentoso-albicantia reticulato-venosa, vetustiora ad nervos venasque ferrugineo-fulvescentia, infernè subcruciato-quadriloba lobis 2 inferioribus obtusissimis inferiùs ad latus sinû brevi excisis: petiulus triplè brevior laminâ: stipulæ oblongæ breviores petiolo, bracteis membranaceis rotundo-ovatis longiores atque profundius incisæ. Paniculæ lanatæ reflexæ. Cor. alba, calyce subæquilonga? petalis obovatis. Antheræ lateritio-rubentes. Styli longiores staminibus.

Samples of this species were gathered by Sir George Staunton in the province of Canton, China, and deposited in the herbariums of Sir Joseph Banks and Mr. Lambert. When the plant was introduced we have not learned. It is not recorded in the last edition of the Hortus Kewensis. The species borders upon *alceæfolius* of Lamarck as well as upon *rugosus* of Sir James Smith in Rees's Cyclopediæ, but differs from both by leaves with an elongated middle lobe and by reflected panicles; specially from the first in not having angular branches, from the second by its

pectinated stipules and bractes. The plant seems to have been very generally mistaken in our gardens for *moluccanus*, a very distinct species with aggregated panicles; nor is it even the *moluccanus* of Thunberg's Flora Japonica, as is proved by the prototype sample in the Banksian Herbarium, although that is different from the true *moluccanus*.

The drawing was taken at Mr. Kent's at Clapton, where it flowered in the hothouse during last autumn, we believe for the first time in this country. There are very large plants of it in Mr. Lee's nursery at Hammersmith, but none of them have been yet brought to flower.

A sarmentose shrub growing much in the way of the Common Bramble or Blackberry of our hedges, and extending its long woolly branches to a great distance. The flowers are white and about the size of a sixpence. The anthers tile-red. The styles are longer than the stamens. The leaves in some of the samples were little less than nine inches in length; and covered underneath with a thick white cottony fur, which in time becomes rusty or reddish.

The genus belongs to the Cinquefoil section of the *Rosaceæ*, and is distinguished by the numerous fleshily berried seed of the fruit being collected together on the outside of a common receptacle into a compound berry, and forming the esculent portion, as in the Raspberry and some other species. The Strawberry is another genus of the same section of the same order; but there the fruit may in some sort be called the converse of the Raspberry kind, the seeds being dry and fleshless, but the receptacle on which they are collected fleshy and succulent, and forming the whole of the esculent part of the fruit, as the seeds on the contrary do in the Raspberry, where the receptacle is dry.

Rubus is of those genera whose type is pretty numerously represented in all quarters of the globe.

SELLOA glutinosa.

Clummy Sello.

SYNGENESIA POLYGAMIA SUPERFLUA.

Nat. ord. COMPOSITÆ. Adanson fam. 2. 103.

CORYMBIFERÆ. Jussieu gen. 173. Div. I. Receptaculum nudum. Semen papposum. Flores flosculosi.

SELLOA. Calyx (anthodium) imbricatus ovatus. Receptaculum nudum. Pappus nullus. Flosculi fœminei inconspicui. Genus BACCHARI, CONYZÆ, GNAPHALIO et ARTEMISIÆ affinis. Planta suffruticosa tota glutinosa. Folia conferta, fasciculata, lineari-lanceolata, trinervia, integerrima. Panicula corymbosa, terminalis, erecta, ramis angulatis. Calyx (anthodium) glaber, ovatus, imbricatus. Corollæ flavae. Nullum pappi vestigium. Sprengell cent. spec. minùs cogn. 36. n. 85.

SELLOA glutinosa. Sprengell loc. cit.

Caules teretes, flexuosi, striati, prolifero-foliosi. Fol. viscosa, alterna, numerosa, sessilia, decurrentia, elongatè lanceolata, angusta, 3-uncialia latitudine vix $\frac{1}{2}$ unciae, trinervia immersè puncticulata et pruinâ albidâ ad lentem visibili densissimè adpersa, tenuia, lenta, acuminata apice recurvo, glandulis minutis subciliolata. Panicula decomposito-dichotoma, cymosofastigiata, foliosa, ramulis axillaribus gracilibus strictis elasticis anguloso-striatis, pedunculis terminalibus subsessili-trifloris. Flores aurei, purculi, odorem spirantes nostrâ mente Algæ cujusdam marinæ quodammodò referentem, singuli bractea lineari-oblonga appressè subtensi. Cal. viscosus, ovali-oblongus, albo et viridi varius, ore constrictior; foliola acrotissimè imbricata, plura, lanceolata, dorso carinata, apice virentibus, interiora latiora obtusa. Discus hermaph. flosculis 4-6? calycem exsuperantibus limbo revoluti; anth. vitellino-flavicantes; stigmatè bilobo-clavato exserto: radius femin. inconspicuis, flosculis tubo pallido erecto capillari germine bis, limbo multoties longiore, limbo minuto flavo recurvo lineari-oblongo stigmatè vix grandiore. Germina ambo similia, alba, turbinato-linearia, pruinosa, pappo nullo, stigma in flosc. fem. aureum bifurcum, lobulis linearibus. Recept. punctum nudum in fundo calycis.

The species has been lately introduced from the Brazils by Mr. Sello, a german botanist, who has been employed some years in that country in the investigation of the objects of this department of Natural History. The genus, at present consisting of an only species, has been characterized by Professor Sprengell from the absence of all pappus or seed-crown and the peculiarly diminutive limb of the pistilliferous florets of the ray.

The drawing was taken from a plant that flowered in

the hothouse at the botanic establishment of Comtesse de Vandes at Bayswater, in February last.

Stems round, flexuose, fluted, proliferously leafy. *Leaves* clammy, alternate, numerous, sessile, decurrent, long-lanceolate, narrow, of the length of 3 inches with the breadth of scarcely $\frac{1}{4}$ of an inch, 3-nerved, covered with small glandular pits and white particles perceptible only by the help of a magnifier, thin, pliant, taper-pointed and recurved at the top, with a slight minute glandular edging. *Panicle* repeatedly dichotomous, cymously level, leafy; *branchlets* slender, stiff and straight, elastic, angularly fluted; *peduncles* terminal subsessilely 3-flowered. *Flowers* golden-yellow, small, and as it appeared to us with a scent something like that of Seaweed; each subtended by a linearly oblong close-pressed *bracte*. *Calyx* clammy, ovally oblong, white and partly green, constricted at the orifice; *leaflets* several, closely imbricate, lanceolate, keeled at the back, green at the top, inner ones broader, obtuse. *Disk* of the *flower* of about 4-6? *florets* with stamens and pistil, higher than the calyx, with a revolute *limb*; *anthers* of a deep reddish yellow, *stigma* two-lobed clavately connivent protruded: *ray* of inconspicuous pistilliferous *florets*, *tube* slender capillary straight pale twice the length of the *germen* and many times that of the *limb*; *limb* minute, yellow, linearly oblong, hardly larger than the stigma. *Germens* of both disk and ray the same, white, turbinate linear, frosted; *pappus* (seed-crown) none; *stigma of the ray* deep yellow, forked, with two fine linear lobes. *Receptacle* a naked point at the bottom of the calyx.



HOVEA linearis.

Linear-leaved Hovea.

DIADELPHIA DECANDRIA.

Nat. ord. LEGUMINOSÆ. *Jussieu gen.* 345. *Div. V.* Corolla irregularis, papilionacea. Legumen uniloculare bivalve.=PAPILIONACEÆ. *Brown in append. to Flind. voy.* 2.

HOVEA. *Suprà vol. 4. fol.* 280.

H. linearis, foliis linearibus subtus pilosiusculis, leguminibus glabris. *Brown in Hort. Kew. ed. 2. 4.* 275.

Poiretia linearis. *Smith in trans. linn. soc.* 9. 304.

Frutex pube fulvo-fusca villosus: rami teretes graciles stricti elastici subflexuosi laxius foliosi. Fol. 3-plo intervallis longiora, sparsa, patentissima, lanceolato-linearia, rugulis subtilibus utrinque immersè reticulata, subtus appressè pilosiuscula, margine depressa, recurvo-apiculata, nervo medio simplici subtus pube brevi ferrugineâ densâ appressâ vestito: petiolus fuscus teres brevissimus, stipulâ parvulâ subulatâ utrinque stipatâ. Flores $\frac{1}{2}$ uncie subadæquantes, lilacino-pallentes, inodori; pedunculi (an veriùs pedicelli in pedunculo obsoleto? basi enim coherens) per ramos ramulosque racemosè dispositi, axillares, parùm longiores petiolis, sæpiùs aggregatè bini?—quaterni? rariùs solitarii, 1-flori, fusco-hirsuti, bractea minutâ singulorum basi appressâ. Cal. more pedunculorum pubescens, bracteolis 2 oppositis calyculatis subtensus, nutans, bis fermè brevior vexillo, bilabiatus, labiis aquilongis, summo latissimè cuneato-truncato-retuso, lateribus deflexis, dorso carinato, cornubus extremis acutis, imò ad $\frac{1}{2}$ usque 4-fido segmentis æqualibus erectis acuminatis. Vex. arrectum, oblato-v. subreniformi-ovatum, retusum, basi laminæ areolâ luteâ margine radiatâ extus halone purpureo circumdatâ, ungue triplo brevior lineari-oblongo: alæ porrectæ vexillo à margine interiore transverse oppositæ oblongæ apice rotundatæ, ungue brevi simplici: carina inclusa paulò exsuperans calcem, obtusa, compresso-ventricosa, apice saturatè violacea, petalis à margine inferiore conniventibus, unguibus obsoletè bicurvis crure altero brevissimo rotundato, altero angusto duplo brevior laminâ. Fil. monadelphum breviter æqualitèrque 10-fidum, fissurâ dorsali omninò divisum: anth. pallidè luteæ, lineari-oblongæ, erecto-incumbentes. Germ. oblongum, viride, glabrum; stylus pluriès longior, albus, glaber, filiformis, ascendens capitello stigmatoso minuto concolori pruinoso terminatus.

Still an extremely rare greenhouse shrub, although introduced from New South Wales by Mr. George Hibbert, as far back as the year 1796. It is one of the two species enumerated in the Hortus Kewensis; but has never been represented by any published figure. Four species of this genus are now cultivated in our gardens.

The drawing was taken at the nursery of Messrs. Colville in the King's Road, Chelsea, where the plant is in

blossom about February and March. We have never seen any other than young small samples. They are always much fuller of flowers than any we have seen of *Hovelia Celsi* treated of in a preceding article of the present publication.

A shrub, furred with a brownish tawny pile: *branches* round slender straight stiffish elastic slightly flexuose, widely leaved. *Leaves* three times the length of the intervals, scattered, wide-spread, lanceolately linear, minutely wrinkled or netwisely marked with fine insunk lines, underneath slightly and close-pressedly hairy, depressed at the edge, pointed and recurved at the top, midrib simple covered underneath by a short rust-coloured dense flat-pressed pile: *petiole* brown, round, very short, furnished on each side with a small subulate *stipule*. *Flowers* about a quarter of an inch long, pale blueish lilac, without scent; *peduncles* (or rather perhaps pedicles upon an obsoletely shortened peduncle? for they cohere at the bottom) racemosely disposed upon the main and partial branches, axillary, but little longer than the petioles, generally aggregated by pairs? or fours?, not often solitary, oneflowered, furred, a minute close-pressed *bracte* at the foot of each. *Calyx* furred in the same way as the peduncles, calyculately subtended by two opposite *bracteoles*, nodding, almost twice shorter than the vexillum; *lips* of one length; *uppermost* very broadly cuneate, truncately retuse, bent down at the sides, keeled at the back, with two pointed corners at the extremities; *lowermost* 4-cleft to about one third of its depth with upright equal taper-pointed segments. *Vexillum* oblatelly or subreniformly ovate, retuse, at the base of the *blade* or *broad part* marked with a yellow radiately edged spot surrounded with a purple halo; *unguis* three times shorter linearly oblong: *alæ* pointing straight forwards with their upper edges opposite to the vexillum, round-pointed; *unguis* short, simple; *carina* enclosed, exceeding the calyx but little, obtuse, compressedly ventricose, of a deep violet colour at the end, *petals* meeting at the lower edge; *ungues* obsoletely 2-pronged, one prong extremely short and rounded, the other narrow and twice shorter than the blade. *Filament* monadelphous, shallowly and equally 10-cleft, divided all the way down at the back: *anthers* pale yellow, linearly oblong, from upright lying across the points of the filament. *Germen* oblong, green, smooth; *style* several times longer, white, smooth, filiform, ascending, terminated by a minute frosted stigmatose head.



H. Mart. del.

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TOURNEFORTIA fruticosa.

Sweet-scented Tournefortia.

PENTANDRIA MONOGYNIA.

Nat. ord. BORAGINÆÆ. Jussieu gen. 128. Brown prod. 1. 492.

TOURNEFORTIA. Cal. 5-partitus. Cor. hypocrateriformis (v. subrotata), fauce nudā. Stam. inclusa. Stig. peltatum, subconicum. Bacca dipyræna, ossiculis dispermis. Frutices volubiles v. erecti. Fol. scabra v. tomentosa, integra. Spicæ secundæ, ebracteatæ, sæpius cymosæ. Brown prod. 1. 496.

T. fruticosa, caule fruticoso, foliis petiolatis, corollis hypocrateriformibus.

Lin. suppl. 132; (sub MESSERSCHMIDIA).

Tournefortia Messerschmidia. Sweet hort. sub. lond. 31.

Messerschmidia fruticosa. Linn. suppl. 132. Willd. sp. pl. 1. 789. Ejusd. enum. 1. 188. Hort. Kew. ed. 2. 1. 303.

Rami axillares, flexuosi, virides, teretes, hispidi. Fol. divaricata, elongato-lanceolata, saturatè viridia, hispida, nitida, 3-uncialia v. ultra latitudine unciali v. infra, infernè subovata supernè longius attenuata: pet^{us} pluriès brevior laminā, à supino canaliculatus. Paniculæ ebracteatæ, ramulorum summorum terminales, dichotomo-cymosæ, divaricatæ, flexuosæ, flore solitario in singulis furcis sessile; spiculæ dichotomæ, pedunculatæ, recurvæ, floribus parvulis bifariā v. disticho-secundis, approximatis, rachide appressè villosā. Cal. parvus, herbaceus, pubescens, campanulatus, aliquoties brevior tubo corollæ, persistens, segmentis acuminatis. Cor. hypocrateriformis, luteo-virens, extus pubescens: tubus rectus, tereti-angulosus; faux infatior, saturatè virens, intus ad orificium plicis 5 cum laciniis alternantibus notata: limbus pallidè et squalidè lutescens, stellato-patens æstivatione valvæ infracto-connivente, laciniis acuminatis undulatis intus glabris. Anth. subsessiles, fusce, sagittato-oblongæ, fauce inclusæ. Stylus columnaris, teres, glaber, crassiusculus: stig. peltato-capitatum, virens, conicum, villosum, obtusum, basi planum: germ. calyce inclusum, viride, rugosum, umbilicatum, subrotundum, basi disco glanduloso luteo cinctum.

The genus MESSERSCHMIDIA, where our plant formerly ranked, has been incorporated by Mr. Brown with TOURNEFORTIA, technically distinguished in the Prodromus of the Flora of New Holland among its co-ordinate *Boraginææ* by a definition of which the following is a version:

Calyx 5-parted: *corolla* hypocrateriform or nearly rotate smooth (naked) in the *faux*: *stamens* enclosed: *stigma* peltate, subconical: *berry* dipyrænous (twin-stoned), each *stone* (*ossicle*) containing two seeds (*kernels*): *embryo* inverted. The species are shrubby and consist of both twining and standard plants, with entire and either rough or

else downy *leaves*, onesided bracteless *spikes* usually divided in the manner of a cyme.

The present species was introduced by Mr. Masson in 1779 from the Canary Islands; but has never been represented by any published figure. It is a greenhouse shrub of easy culture, rather straggling in its growth, but desirable on account of the exquisite scent of the blossom, the fragrance of which seems to us to partake of the flavour of the Violet and the Mignonette.

Branches axillary, flexuose, green, round, rough-piled. *Leaves* widespread, long-lanceolate, deep green, rough-piled, shining, 3 inches long or more, an inch broad or less, subovate at the lower part, far-tapered at the upper: *petiole* several times shorter than the blade, channelled at the upper side. *Panicles* bracteless, terminating the upper branches, dichotomously cymose, widespread, flexuose, with a single sessile flower at the bottom of each fork; *spikelets* dichotomous, peduncled, recurved, with small nearset *flowers* facing one way in two rows, *rachis* (*general stalk*) close-pressedly villous. *Calyx* small, herbaceous, furred, campanulate, more than twice as short as the tube of the corolla, permanent, with taper-pointed segments. *Corolla* hypocrateriform, yellowish green, furred on the outside: *tube* straight, angularly cylindrical; *faux* wider, of a deep green, marked at the inside of the orifice with 5 plaits that alternate with the segments: *limb* of a pale squalid yellow, stellately spread; in the bud state with the valvular ends of the *segments* bent as if broken inwards, in the expanded state taper-pointed, undulate and smooth on the inside. *Anthers* nearly sessile, brown, sagittately oblong, enclosed within the faux. *Style* columnar, cylindrical, smooth, thickish: *stigma* peltately capitate, green, conical, villous, blunt, flat at the base: *germen* enclosed within the calyx, green, wrinkled, umbilicate, roundish, girded at the base by a yellow glandular disk.

The drawing was taken in March 1819 at the nursery of Messrs. Whitley and Co. Fulham.



F. Lindley del.

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ROSA sempervirens.

Evergreen Rose.

ICOSANDRIA POLYGYNIA.

Nat. ord. ROSACEÆ. Jussieu gen. 334. Div. II. ROSÆ.

ROSA. Suprà fol. 458.

Div. X. Systylæ. Styli in columnam elongatam coherentes. Stipulæ ad-natæ. Lindley monogr. 111.

R. sempervirens, surculis scandentibus, aculeis subæqualibus falcatis, foliis sempervirentibus. Lindley monogr. 117. n. 64.

Rosa sempervirens. Linn. sp. pl. ed. 2. 1. 704, Mill. dict. ed. 8. n. 9.

Willd. sp. pl. 2. 1072. Miss Lawrance's roses. t. 45. Persoon syn. 2.

49. Decand. fl. franç. 4. 446. Hort. Kew. ed. 2. 3. 263. Decand. monsp. 138. Smith in Rees's cyclop. in loco.

Rosa scandens. Mill. dict. ed. 8. n. 8. Brotero fl. lus. 1. 341.

Rosa balearica. Desfont. cat. h. par. Persoon syn. 2. 49.

Rosa atrovirens. Viviani fl. ital. 4. t. 6.

Rosa capreolata. Neill in Edinb. philos. journ. 3. 104.

(β) microphylla, foliolis suborbiculatis. Lindley l. c.

Rosa microphylla. Desfont. atl. 1. 401.

Frutex scandens surculis productissimis, gracilibus, lucido-virentibus, multoties divisis, altero latere subrubrescentibus, aculeisque tenuibus rubris subuncatis armatis. Folia plerumque deflexa, nitidissima, sempervirentia omnino sine pube; stipulæ angustæ, rubræ, fine reflexæ, glandulis raris ad marginem; petioli aculeolis curvatis armati; foliola 5-7, ovalia v. ovato-lanceolata, plana, simpliciter serrata, utrinque lucido-virentia, subtilius verò plurimum pallidiora. Flores valde numerosi, fragrantæ, albi; bractæ nuda, lanceolata, reflexæ, rubedine tinctæ; pedunculi nudi vel glandulosi; tubus calycinus ovatus, nudus vel glandulosus; sepala (foliola calycina) decidua, ovata, acuminata, subsimplicia, petalis breviora, glandulis scabrata; petala obcordata, concava; stamina 138-140, caduca; discus conicus, admodum crassus; ovaria 30; styli in columnam longam pilosam coagmentati. Fructus globosus, aurantiacus, parvus. Lindley loc. cit. (Ex anglico versum).

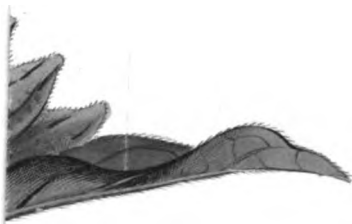
"A climbing plant with very long, slender, bright green, much divided shoots, reddish on one side, and armed with slender, somewhat hooked red prickles. Leaves usually deflexed, very shining, evergreen and without any sort of pubescence; stipules narrow, red, reflexed at the end, with a few glands on their edge; petioles armed with little curved prickles; leaflets 5-7, oval or ovato-lanceolate, flat, simply serrated, bright green on both sides, but much paler beneath. Flowers very numerous, white and fragrant; bractæ naked, lanceolate, reflexed, stained with red; peduncles naked or glandular; tube of the calyx ovate,

naked or glandular; *sepals* deciduous, ovate, acuminate, nearly simple, shorter than the petals, rough with glands; *petals* obcordate, concave; *stamens* 138-140, quickly dropping off, *disk* conical, very thick; *ovaries* (*germens*) 30; *styles* united into a long hairy column. *Fruit* round, orange-coloured, small."

"A very ornamental plant, rapidly forming a compact covering to old pales or buildings against which it is planted. From *Rosa prostrata* its rambling shoots and hairy styles distinguish it. Viviani's *Rosa atrovirens* is described with rough and figured with smooth fruit."

"The Ayrshire Rose, described by Mr. Neill in the Edinburgh Philosophical Journal, under the name of *capreolata*, does not appear to differ from this, which is not a native of America, but is confined to the South of Europe and North of Africa." *Lindley monogr. l. c.*

The excellent drawing which accompanies this article has been kindly contributed by the author of the Monograph of the Roses.



BURCHELLIA capensis.

Cape Burchellia.

PENTANDRIA MONOGYNIA.

Nat. ord. RUBIACEÆ. Jussieu gen. 196. Div. IV. Fructus monocarpus bilocularis polyspermus. Folia opposita; caulis sæpè frutescens.

BURCHELLIA. *Capitulum involucratum. Cor. clavato-infundibuliformis: limbo 6-fido abbreviato faucibus imberbi; æstivatione mutuo imbricatâ contortâ. Stamina supra medium tubi inserta; antheris subsessilibus inclusis. Stigma clavatum. Bacca calyce altè 5-fido coronata, bilocularis, polysperma. Brown MSS.*

Frutex ramosissimus pubescens, ramulis compressis. Folia opposita. Stipulæ interpetiolares, è dilatatâ basi subulatæ, indivisæ, caducæ. Capitulum terminale, extra involucrum monophyllum pluridentatum abbreviatum pari unico foliorum minorum stipulis proportionatim latioribus subtensum. Ovaria supra receptaculum convexum villosum bracteolisque nonnullis minutissimis conspersum sessilia, distincta. Calyx: limbo foliaceo æquali, tubum aliquoties superante. Corolla coccinea, extus pilis appressis, intus glabra præter barbam annularem juxta basin tubi. Antheræ lineares. Discus epigynus carnosus, indivisus, imberbis. Stigma exsertum, utrinque sulco exaratum. Bacca turbinato-globosa, bilocularis septo completo. Placenta adnata. Semina angulata. Embryo axilis, dimidio albuminis cartilaginis longior. Brown MSS.

Burchellia capensis. Brown MSS.

Cephalis bubalina. Persoon syn. 1. 202.

Patabea. Hujus congener aut genere proxima LONICERA bubalina; &c. &c. Jussieu gen. 208.

Lonicera bubalina. Lin. suppl. 146. Vahl symb. 3. 57. Thunb. prod. 47.

Ejusd. flor. cap. 2. 54. Willd. sp. pl. 1. 989.

Buffelhorn. Colonis batavis Cap. B. S. (ob lignum durissimum).

Ramuli robusti. Folia saturatè viridia, subcoriacea, hispida, lato-oblonga breviter acuminata basi contractius subcordata, 3-5-uncialia, per paria distantia: petiolus brevis hirtus. Corolla uncialis vel paulo longior, diametro ferè pennæ scriptoriæ, firma.

Native of the Cape of Good Hope. Long known in our Herbariums and the various botanical systems, though lately introduced into our gardens, where we believe it has now flowered for the first time.

By its original observer, the species had been ranked under the head LONICERA; but was afterwards referred by Jussieu to its true station, the RUBIACEÆ, though that learned botanist, in adopting an erroneous description, representing the seeds of the berry as solitary, has placed the plant in a wrong section of the order. Mr. Brown having

proved it not to be consistently reducible to any established genus, has formed a new one from it, and, with that liberality and vigilance which he extends to every interest of science, availed himself of the appropriate occasion of honouring the merits of Mr. Burchell, the zealous and enterprising investigator of the regions to which our plant belongs.

The shrub is called *Buffelhorn* (*Buffaloe-horn*) by the Dutch colonists at the Cape, from the hardness of the wood, according to Mr. Masson. The drawing was taken from a sample in the hothouse at the nursery of Messrs. Colville in the King's Road, Chelsea, and is the first ever published.

Shrub full of branches, furred; *branchlets* compressed. *Leaves* opposite. *Stipules* between the petioles, broad at the bottom subulate at the top, undivided, caducous. *Flower-head* terminal, subtended on the outside of a short *involucre* of one piece and with several indentations by a single pair of smaller leaves with proportionately broader stipules. *Germens* sessile, distinct, resting on a convex villous *receptacle* beset with a few minutely small *bracteoles*. *Calyx* deeply 5-cleft, with an equal foliaceous limb several times longer than the tube. *Corolla* scarlet, clavately funnelform, close-pressedly furred on the outside, except a bearded circle near the bottom of the tube quite smooth on the inside: limb 5-cleft, short: *æstivation* (folding of the segments in the unexpanded flower) mutually overlapped (as distinguished from alternately overlapped, a more common mode in this tribe). *Stamens* inserted just above the middle of the tube; *anthers* subsessile, enclosed, linear. *Stigma* protruded, clavate, with a furrowed line on each side. *Berry* turbinate globular, surmounted by the persistent calyx, 2-celled with an entire partition, many-seeded. *Placenta* (receptacle of the seed) adnate. *Seeds* angular. *Embryo* in the axis of the cartilaginous albumen, and longer than half the length of it. (*From the latin manuscript of Mr. Brown.*)



MALACHRA fasciata.

Rough-piled Malachra.

MONADELPHIA POLYANDRIA.

Nat. ord. MALVACEÆ. Jussieu gen. 271. Div. II. Stamina in tubum corolliferum connata, indefinita. Fructus multicapsularis; capsulæ verticillatæ, in orbem dispositæ aut in unam compactæ.

MALACHRA. Involucrum 3-6-phyllum multiflorum. Singulo flori calyx 5-fidus, caliculo 8-12-phylo cinctus. Antheræ in apice et superficie tubi. Stigmata 10. Caps. 5, in orbem dispositæ, 1-spermæ. Herbæ; flores axillares. Juss. loc. cit. 272.

M. fasciata, capitulis pedunculatis triphyllis subquinquefloris, foliis subrotundis obsolete lobatis, caule villosa. Willd. sp. pl. 3. 769.

Malachra fasciata. Jacq. ic. rar. 3. t. 548. Ejusd. collect. 2. 352.

Planta annua? Caulis unicus, erectus, 6-pedatis, pollice duplo crassior, teres, ex alis foliorum ferè omnium ramos emittens, infernè cinereus, pilis rigidis et pungentibus densissimè obsitus. Ex dextro latere axillæ ramorum omnium, qui ex caule egrediuntur, in caule fascia ascendit ferè ad proximum ramum usque viridis glabra erecta et plus minùs 2 lineas lata. Folia sunt alterna longè petiolata, serrata, venosa, utrinque et ad ora hispidula, infima subrotunda et margine 5-loba, superiora 3-loba magisque oblonga et acutiora; ad petiolos utrinque stat stipula solitaria, subulato-setacea, erecta, hispida et uncialis (vel 3plo brevior). Florum capitula axillaria, breviter pedunculata, 2-3 successivè. In basi cujusque folii perianthii communis sedet flos: reliqui brevissimè pedunculati centrum occupant. Uterque calyx longè ciliatus est, exterior insuper utrinque hispidus. Perianthii proprii tubus vires, lacinie pallent cum striis badiis. Cal. comm. 3-(poly-)phyllus, 5-(multi-)florus, persistens: foliola ovato-acuminata, argutè serrata, nervosa, inæqualia (ad basin bistipulata ut reliqua folia) cum interjectis setis solitariis (stipulis): cal. proprius profundè 5-partitus, erectiusculus, persistens; lac. lanceolata, acuminata, 3-striatæ, corollæ duplo breviores. Cor. foris rosea cum striis purpureis, intùs pallet, extùs villosula, 1-petala, infundibuliformis, subsemuncialis, limbo patente 5-partito, laciniiis obovatis, obtusis, planis. Fil. plurima, monadelphica, infernè villosa, corollæ breviora, erecta: anth. subrotunda, ochroleuca. Germ. subrotundum, 5-sulcatum. Stylus filiformis, longitudine staminum; 10-fidus, supernè recurvus, apiculis rotundato-obtusis villosis terminatus. Pericarpium: arilli 5 glabri cinerei, in capitulum subrotundum collecti, introrsum dehiscentes, decidui: sem. solitaria. Jacq. coll. 2. 352.

MALACHRA is distinguished from its nearest coordinates (*Malvaceæ*) principally by short-stalked subsessile flowers collected within a common involucre composed of the diminished upper leaves with their stipules. The leaves disappearing from about the central flowers, while the stipules remain, afford the appearance of an additional calyx.

The present species is said by Jacquin to come from the Caraccas, and is supposed to be annual. The samples in Mr. Lambert's Herbarium are from Jamaica. The drawing was taken from a plant which flowered during the winter months in Mr. Kent's hothouse at Clapton. The stem was more stunted, the heads of flowers nearer together, and apparently more numerous than is usual in the free-growing spontaneous individual.

The specific name has been suggested by a green longitudinal stripe divested of the hispid pubescence that covers the rest of the plant, and which is to be seen on strong samples on one side in the intervals between the branches; but which was not perceptible in the present.

The blossom continues expanding a long time in succession.

The species is not to be found in any of the records of our own gardens, and has been probably now first introduced. Some of them sting, like Nettles.



RAPHIOLEPIS indica.

China Hawthorn or Raphiolepis.

ICOSANDRIA DIGYNIA.

Nat. ord. ROSACEÆ. Jussieu gen. 334. Div. I. Germen simplex inferum, polystylum. Pomum calycino limbo umbilicatum, multiloculare. Arbores aut frutices. POMACEÆ.

RAPHIOLEPIS. *Cal. infundibuliformis 5-dentatus deciduus. Filamenta filiformia. Ovarium (germen) biloculare. Pomum disco incrassato clausum, putamine chartaceo: semina dua gibbosa, testâ coriacea crassissima. Frutex (Chinæ). Folia sempervirentia crenulata coriacea reticulata. Racemi terminales bracteis foliaceis persistentibus squamosi. Lindley MSS.*

Raphiolepis indica. Lindley MSS.

Cratægus indica. Linn. sp. pl. ed. 2. l. 683. Willd. sp. pl. 2. 1005. Loureiro coch. 319. Curtis's magaz. 1726? Hort. Kew. ed. 2. 3. 203.

Arbor magna, inermis ramis patentibus. Folia lanceolata, inæqualitèr serrata, glabra, alterna. Flos albus, corymbis racemosis, squamosis, terminalibus. Cal. superus, 5-fidus in senectute truncatus. Corollæ petala 5, subrotunda, patentia. Stamina icosandra. Styli duo. Bacca calycina subrotunda, umbilicata, carnosa, 1-locularis, edulis: sem. 2-4, oblonga. Lignum rubescens, grave, tenax, aptissimum ad formandos remos, vel quoslibet palos, qui impulsî, vel pondere gravati, aliquantulum cedunt, nec franguntur. Lour. l. c.

RAPHIOLEPIS is proposed by Mr. Lindley in an unpublished tract on POMACEÆ, the first section of Jussieu's Order of ROSACEÆ. The character was kindly communicated to us from the author's manuscript.

The genus is distinguished from its coordinates of the same section by having a funnelform calyx, the whole of which, down to where it adheres to the germen, falls off immediately after or at the same time with the petals of the flower; specially from CRATÆGUS, where it has hitherto ranked, by a *fruit-stone* or *putamen* of a paper substance, and from all other double-celled single-fruited coordinates by a *seedcoat* or *testa* of a leathery substance. The name (ραφίον λεπίς) has been suggested by the narrow bractes of the raceme, which in spontaneous specimens are sometimes found to have acquired a herbaceous or foliaceous consistence, and are unlike any thing else in this order.

A chinese plant. Introduced by Mr. James Drummond in 1806.

Said by Loureiro to grow to a large tree, the wood of which is of a reddish hue, heavy and tough, and applicable to various economical purposes. The Haw or fruit is eatable.

Mr. Lindley thinks that the *CRATÆGUS rubra* of Loureiro is another species of this genus.

The drawing was taken from a plant which blossomed in April last in the greenhouse at the botanical garden of the Horticultural Society near Hammersmith, an establishment which, under its present liberal and judicious superintendence, promises to become a valuable depository of curious and useful vegetables.



M. ...

... ..

J. ...

STROPHANTHUS dichotomus; β . chinensis.

Chinese Strophanthus.

PENTANDRIA MONOGYNIA.

Nat. ord. APOCYNÆE. Brown in Wern. trans. 1. 59. Ejusd. prodr. 465. Sect. I. Semina comosa. Fructus bifollicularis, nunc Capsula bilocularis.

STROPHANTHUS. Cor. infundibuliformis. Fauz coronata squamulis 10 indivisis. Limbi laciniæ caudatæ. Stamina medio tubo inserta. Antheræ sagittatæ, aristatæ v. mucronatæ. Germina 2. Stylus 1, filiformis, apice dilatato. Stigma subcylindraceum. Squamæ 5, hypogynæ. Folliculi *****. Frutices sarmentosi. Folia opposita. Brown in wern. trans. 1. 72.

S. dichotomus, ramis pedunculisque dichotomis, foliis mucronato-acuminatis. Persoon syn. 1. 299.

Strophanthus dichotomus. Decand. in ann. du mus. 1. 408. Id. in bulletin des sc. par la soc. philom. n. 64. 123. Lamarck encyc. 7. 471. Smith in Rees's cyclop. in loco.

Nerium cordatum. Lamarck encyc. 3. 458. Roxburgh flor. ind. ined.

Nerium scandens. Loureiro cochin. 116.

Echites dichotoma. Carey beng. 20.

Echites caudata. Lin. mant. 52. Burm. ind. 68. t. 26. Willd. sp. pl. 1. 1240.

(α) *cochinensis*, segmentis calycinis erectis brevissimis transversè latioribus.

(β) *chinensis*, segmentis calycinis bracteisque erectis transversè magnoperè angustioribus.

(γ) *coromandelianus*, segmentis calycinis bracteisque recurvatis.

Frutex scandens? rami oppositi cortice fusco verruculoso-scabrato. Fol. opposita, in summis ramis numerosa approximata, oblongo-v. obovato-lanceolata, saturatè viridia, nitida; pet. brevis: stipulæ collateraliter-geminæ, parvula, virides, intraaxillares, semiovato-lanceolata. Flores inter folia ad finem ramorum, plures, dichotomo-cymosi, chloroleuci, biunciales v. ultrâ; bractæ angustæ, lanceolata, erectæ. Cal. campanulatus, $\frac{1}{2}$ uncia vix adæquans, virens, 5-fidus segmentis lineari-acuminatis erectis canaliculatis formâ moleque ferè bractearum; squamulæ 5 hypogynæ virentes suborbiculatæ. Cor. infundibuliformis, æstivatione contortâ: tubus cum fauce turbinate-contractus subsemuncialis angulosus, solus vix excedens calycem constrictus striato-rugatus, faux angulosa intus velutina punctis striisque densè consitis punicans; limbus maximus, sesquuncialis, æqualis, recurvato-patens, laciniis stellato-distantibus, caudato-attenuatis, convolutocanaliculatis, infernè intus colore faucis: corona faucis è squamis 5 cuticulos coloratis bifidis basi divisurarum limbi adnatis, lobis dentiformibus obtusissimis. Fil. pallida, breviter intra faucem libera, indè infrâ omnind adnata fauci ad orificium tubi usque, formâ obversè clavatâ, prominentia, lanuginosa: anth. erectæ, sagittatæ, aristato-elongatæ, conniventes, ochroleucæ. Germ. viride, subrotundo-didymum, quadrilobo-sulcatum, glabrum, fundo glanduloso calycis incubans: stylus ferè NERII, albus, clavato-filiformis, pruinosis, suturâ utrinque notatus, ut si ex binis conferruminatis:

stigma pruinose, oblongum, cylindricum, erectum, basi marginatum, fundo subtus planum, apiculo angusto bifido terminatum, antheris demum agglutinatum.

The three plants, enumerated above as varieties of this species, come from three different countries; and are represented in the Banksian Herbarium by samples included under the present title. The subject of our article is clearly the same with the Chinese samples collected by Messrs. Bladh and Staunton at Macao; and differs from the Coromandel plant of Roxburgh by a closer foliage and in having the bractes and calycine segments entirely upright instead of conspicuously recurved; as also from the Cochinchinese plant of Loureiro by longer and proportionately narrower calycine segments as well as a longer tapered foliage. The three plants are probably specifically distinct; though we have contented ourselves by separating them as varieties, under names that may be retained or rejected, as subsequent investigation may suggest.

It does not appear that this singular plant had been known in our gardens till now. We saw it first in the hot-house of the nursery belonging to Messrs. Colville, in the King's Road, Chelsea, where it blossomed this spring, and afforded the subject of the present drawing.

A climbing? *shrub*: branches opposite, bark brown, minutely warted. *Leaves* opposite, numerous and close-set at the upper part of the branches, oblongly or obovately lanceolate, deep green, shining: *petioles* short: *stipules* within the axils of the leaves, in pairs, the one facing the other edgeways, small, green, semiovately lanceolate. *Flowers* among the leaves at the ends of the branches, several, dichotomously cymose, between straw and cream-coloured, two inches long or more; *bractes* narrow, upright, lanceolate. *Calyx* green, campanulate, scarcely $\frac{1}{2}$ of an inch deep, segments 5, upright linear and taper-pointed, channelled, nearly of the same shape and size as the bractes; *hypogynous squamules* (small green roundish scalelike appendage) 5, interposed between the germen and the segments of the calyx (outside the corolla?). *Corolla* funnel-form: tube with the faux about half an inch long narrowly turbinate, tube (proper) scarcely longer than the calyx, narrow, of one colour throughout, wrinkled and streaked,

faux angular velvety furred on the inside and crimsoned with closeset streaks and dots; *limb* very large, an inch and a half long, equal, distantly and recurvedly stellate, segments narrow, caudately tapered, involutely channelled, at the lower part on the inside of the same colour as the *faux*: *faucial scales* 5, of the colour and consistence of the interior lining of the *faux*, bifid, adhering to the *faux* at the base of the fork of each division between the segments of the *limb*, lobes short dentiform rounded at the ends. *Filaments* pale, downy, springing from the orifice of the tube, shortly detached at the top within the *faux*, thence embossedly adnate to the *faux* down to the tube, having the appearance of so many thick plaits of an obversely clavate form: *anthers* cream-coloured, sagittate, long-awned, upright, connivent. *Germen* on the glandular floor or disk of the calyx, green, smooth, twin, roundish, each lobe marked with a furrow: *style* white, pustular, clavately filiform, with a perpendicular seam on each side, showing it to consist of two parallelly cohering ones, nearly as in *NERIUM*; *stigma* white, frosted, oblong, upright, cylindrical, flat at the bottom with a projecting ledge or rim, with a narrow bifid summit; ultimately adhering to the lower part of the anthers.

Loureiro has described the twin *follicles* (*indehiscent seedvessels*) of his plant as horizontal, thick, and obtuse, with many oblong compressed feathered *seeds*.

STROPHANTHUS comes very near to *NERIUM*; but differs in the sarmentose or climbing nature of the shrubs, in the foliage being disposed in pairs instead of threes, in having a funnellform instead of an hypoc crateriform corolla, and by a faucial crown of 5 regularly bifid scales instead of a crown with an irregularly shred border.

The type of this genus has been observed in India, Asia, and the tropical parts of Africa. The present we believe is the only species which has appeared in any European garden.



H. R. del.

Bot. by J. H. R. del. 1/2. St. Louis, July 1, 1820.

J. H. R. del.

CANNA Lamberti.

The new Indian Reed.

MONANDRIA MONOGYNIA.

Nat. ord. CANNÆ. Jussieu gen. 62. CANNÆ. Brown prod. 1. 307, in obs. III.; ubi à SCITAMINEARUM ordine distinguuntur.

CANNA. Suprà vol. 3. fol. 203.

C. Lamberti, foliis impubibus, corollæ laciniis interioribus, ternis: labello oblongo erecto-patente integro.

Canna Lamberti. Lindley MSS.

Canna indica. Ruiz et Pavon flor. peruv. 1. 1; (affirmante specimine archetipo Herbario Lambertiano asservato). Non aliorum.

Planta 13-pedalis. Folia oblongo-lanceolata, acuta, superiora minora, margine concolore. Spica triflora (vel exemplare spontaneo multiflora) folio superiore brevior. Flores omnino EUPHORBIAE puniceæ colore rutilæ. Bractea exterior longitudine calycis, oblonga, obtusa, membranacea; interior lanceolata concava. Sepala (segmenta calycina) farinosa, laciniis perianthii (corollæ) exterioribus 3plo breviora, viridi-purpurea. Perianthii (corollæ) laciniæ exteriores lanceolatae, concavae, interioribus breviores: duæ anticae paulò majores; interiores ternæ, suberectæ, oblongo-lanceolatae: labello erecto-patente, majore, subundulato integerrimo. Germen oblongum tuberculatum. Stylus spathulatus, stamine longior.

A new gay-flowered addition to our hothouses, raised by Mr. Lambert from seed collected in the Island of Trinidad. The plant blossomed in May last at Boyton House for the first time in England, when the sample exhibited in the annexed figure was kindly sent to us. The red of the corolla is peculiar, and resembles very closely the colour of the "Scarlet Spurge" (*EUPHORBIA punicea*), but is distinct from that of any other Indian Reed previously known in our gardens.

That our plant is the *CANNA indica* of the Flora Peruviana, we are assured by the prototype sample in the rich Herbarium amassed by the public-spirited zeal of Mr. Lambert, and which sample had been transmitted by M. Pavon, one of the authors of the above Flora. The true *CANNA indica* is however a very distinct species, and differs at first sight from the present, in having a revolute label with a notch at the end, instead of an upright one without any notch, though the two agree in having only three inner segments to the corolla, and not four as in *patens* and *coccinea*.

An herbaceous plant, attaining sometimes nearly twice the height of a man. *Leaves* smooth, oblongly lanceolate, pointed, upper ones smaller, edge of the same colour as the rest of the leaf. *Spike* three-flowered (in the spontaneous specimen manyflowered) shorter than the uppermost leaf. *Outer bracte* of the length of the calyx, oblong, obtuse, membranous, *inner* lanceolate, concave. *Segments* (or *leaflets*) of the *calyx* mealy, three times shorter than the outer segments of the corolla, between green and purple. *Outer segments* of the *corolla* lanceolate, concave, shorter than the inner ones: two front ones rather larger than the other: *inner ones* three, nearly upright, oblongly lanceolate: *label* uprightly spreading, larger, slightly undulate, entire (un-notched). *Germen* oblong, tubercled. *Style* spatulate, longer than the stamen.

The roots are said to be preserved in various ways, and eaten by the Peruvians.



BEGONIA pauciflora.

*see notes at end**Few-flowered Begonia.*

MONŒCIA POLYANDRIA.

Nat. ord. Plantæ incertæ sedis. Polypetala germine infero. Jussieu gen. 436.

BEGONIACEÆ. Bonpland nav. et malm. 151. An HYDRANGEÆ et indè Rubiaceis affines? Lindley MSS.

BEGONIA. Suprà vol. 4. fol. 284.

B. pauciflora, caulescens; foliis cordatis rotundatis nitidis plicatis subbicrenatis: inferioribus æquilateralibus, capsulæ alis inæqualibus obtusangulis. Lindley MSS.

Begonia patula. Haworth suppl. succ. pl. 100?

Herba carnosa 2-3-pedalis. Caules teretes rubidi erecti ramosi impubes, internodiis petiolorum longitudine. Folia fere verticalia minutim puberula, stipulis ovatis acutis scariosis, petiolo suprà canaliculato, caulis colore, longitudine laminæ, quæ nitida, cordata plicata subbicrenata suprà latè viridis infra pallidior, superiorum obliqua, inferiorum subæquilateralis. Paniculæ paucifloræ pilosæ, bracteis ♂ ovatis appressis, ♀ subrotundis. Flores ♂ pallidi rubro tincti laciniis exterioribus latè ovatis obtusis, interioribus 4-plo angustioribus concavis acutiusculis—♀ pallidi virides paulò minores, alis ovarii obtusis, alterâ majore. Lindley MSS.

“*BEGONIA patula* of Mr. Haworth’s above cited tract is reported to be this, but the specific character does not altogether apply to it, and if it should turn out to be the same, the name *patula* can never be retained, for the plant is any thing but spreading.”

“I think I have detected a remarkable affinity between this genus and *HYDRANGEA*, which I shall take a future opportunity of explaining, contenting myself for the present with indicating my view. I believe it is the opinion of some of the Botanists in France that the genus is allied to *Polygoneæ*; an idea originating, I presume, in the taste of the leaves, which have certainly a very striking resemblance to that of different species of *RUMEX*.”

“The drawing was taken from a sample which flowered in the hothouse at the nursery of Messrs. Colville, in the King’s Road, Chelsea, in June last.”

“If this species is the same with the doubtful *BEGONIA*

I have quoted, it has been introduced in 1816 from the Berlin Garden into the Physic Garden at Chelsea."

"Caulescent, fleshy, 2-3 feet high; *stems* round, reddish, upright, branched, furless, intervals between the leaves the length of the petioles. *Leaves* nearly vertical, minutely furred, cordate, rounded, shining, plaited, somewhat doubly crenate, of a lively green above, paler underneath, *upper ones* with a slanted blade, *lower* with an almost entirely evensided one; *petiole* of the colour of the stem, the length of the blade, channelled at the upper side: *stipules* ovate, pointed, scariose. *Panicles* few-flowered hairy; *bractes* of the *barren flowers* ovate close-pressed, of the *fertile flowers* nearly round. *Barren flowers* pale tinged with red, *outer segments* broad-ovate blunt, *inner ones* four times narrower concave rather pointed—*fertile flowers* pale green, but little smaller, wings of the *germen* obtuse one larger than the rest." *Lindley MSS.*

The whole of this article was kindly communicated by Mr. Lindley while the plant was in flower last spring.

The following short notice of the natural tribe of our plant is taken from Mr. Brown's Observations on the Botany of Congo. "The extensive genus *BEGONIA*, which it is perhaps expedient to divide, may be considered as forming a natural order, whose place, however, among the Dicotyledonous families, is not satisfactorily determined. Of *Begoniaceæ*, no species has yet been observed on the continent of Africa, though several have been found in Madagascar and the Isles of France and Bourbon, and one in the Island of Johanna." *Brown obs. bot. Congo.* 45.



DELPHINIUM grandiflorum. β . chinense.

Fischer's Larkspur.

POLYANDRIA TRIGYNIA₁ (rectius fortè PENTAGYNIA?)

Nat. ord. RANUNCULACEÆ. Decand. syst. nat. 1. 129. Div. I. Ranunculaceæ Veræ. Tribus IV. Helleborææ.

DELPHINIUM. Suprà vol. 4. fol. 327.

Sect. III. Delphinastrum. Ovaria 3 interdum 5. Calcar elongatum, interius dipetalum; Petala 4 libera, 2 inferiora stipitata, limbo intus barbato in unica specie integro, sæpissimè bifido. Bracteæ 1 sub pedicello, 2 secus pedicellum sæpissimè oppositæ flori contiguæ.—Radices perennes. Subdiv. I. Petalorum inferiorum limbo integro.

D. grandiflorum, foliis palmatim multipartitis, lobis linearibus distantibus, pedicellis bractea longioribus, petalis calyce brevioribus, 2 inferioribus limbo obliquè inflexo ovato integro. Decand. syst. nat. 1. 351.

Delphinium grandiflorum. Lin. sp. pl. ed. 2. 749 (excl. Mill. syn.) Mill. dict. ed. 8. n. 6. Lamarck encyc. 2. 264. Willd. sp. pl. 2. 1228; (excl. secundo Mill. syn.) Hort. Kew. ed. 2. 3. 320. Curtis's magaz. 1686.

Delphinium nectaris diphyllis labellis integris floribus subsolitariis foliis compositis lineari-multipartitis. Lin. hort. ups. 150. Mill. ic. 2. 167. t. 250. fig. 1. opt.

Delphinium foliis tenuius divisis. Gmel. sib. 4. 187. t. 78.

Delphinium lusitanicum glabrum aconiti folio. Roloff ind. h. craus. 61. t. 3. (ex Lin.) non Tournef.

Delphinium elatius subincanum perenne floribus amplis azureis. Amm. ruth. 175.

(β) chinense, caule rectiore rigido, florescentiâ seriori. Decand. loc. cit. 352; fide Fischeri in litt.

Delphinium chinense. Loddiges's bot. cabin.

Species ab omnibus fere DELPHINIIS perennibus petalis integris nec bifidis distinctissima. Radix nigricans; caulis erectus; fol. petiolata trisecta, segmentis tripartitis, lobis multifidis, lobulis linearibus angustis; pedicelli longi interdum 1-2-pollicares; flores cærulei, magni; sepala ovalia, 8-lin. longa, dorso medio pubescentia; petala calyce multò breviora, 2 superiora alba limbo oblongo acuto integro, 2 inferiora ungue filiformi recto, limbo ovato falcatim ad floris latus inferius deflexo, basi pilis flavis barbato; ovaria 3 rarius 4 erecta, adpressè pubescentia. Variat, 1°. foliis floralibus inferioribus sæpius multifidis, interdum linearibus integris; 2°. racemis paucifloris laxissimis aut multifloris confertioribus; 3°. pedicellis à 6 ad 24 lin. longis; 4°. bracteolis alternis oppositisve à flore distantibus aut huic contiguis; 5°. floribus sæpius cæruleis interdum (ex speciminibus ex eisdem seminibus ortis) lilacinis subroseis imò albidis. An 2 species confusæ? Decand. l. c.

Our plant is said to have been raised from seed sent from Russia by Dr. Fischer, under the name of DELPHINIUM chinense, having been deemed by the Doctor distinct from grandiflorum, with which we have had no opportunity of

comparing it. The differences we find relied on, are, that it comes later into flower, is a taller, more upright, and stiffer plant, with a more narrowly divided leaf. We must also observe, that M. Decandolle has described the limb of the two upper petals in the flower of *grandiflorum* as *pointed*, in our plant it was manifestly *blunt* and *rounded*. We have preferred recording the plant as a strongly marked variety or possible species until the two can be determined by comparison in the living state or rather by experience.

The drawing was taken at the nursery of Messrs. Whitley and Co., King's Road, Fulham, in June 1818. Probably native of some of the Russian districts on the confines of China. Both (β) and (α) vary with cream-coloured flowers. Some of the samples we saw of (β) were three feet high. We found a garden one from Moscow in Mr. Lambert's Herbarium, where the plant is stated to be native of Kamchatka.

The species is remarkable among the perennial Larkspurs in having the limb of the lower petals entire instead of cloven.

Root inclining to black; *stem* upright; *leaves* petioled, triply divided, segments tripartite, lobes multifid (repeatedly cleft), lobules linear narrow; *peduncles* 1-2 inches long or more, ascending, stiff, one-flowered; a simple leafy *bracte* at their base, with two rather smaller ones placed above their middle. *Leaflets of the calyx* obovate, with a small hollow gibbous yellowish green externally villous point. *Petals* much shorter than the calyx, *two upper ones* with pale blue oblong round-ended limbs; *two lower ones* with a filiform straight unguis, limb deflexed, bearded at the base with yellow hairs. *Germens* 3-4, grey, close-pressedly furred.



M. Hunt. del.

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S. H. & Co.

DELPHINIUM cheilanthum.

Doroninsk Larkspur.

POLYANDRIA TRIGYNIA: (rectius PENTAGYNIA!)

Nat. ord. RANUNCULACEÆ. Decand. syst. nat. 1. 129. Div. I. Ranunculaceæ Veræ. Tribus IV. Helleboreæ.

DELPHINIUM. Suprà vol. 4. fol. 327.

Sect. III. Delphinastrum. Ovaria 3 interdum 5. Calcar elongatum, interius dipetalum; Petala 4 libera, 2 inferiora stipitata, limbo intus barbato in unâ specie integro, sæpius bifido. Bractæ 1 sub pedicello, 2 secus pedicellum sæpius oppositæ flori contiguæ. Radices perennes. Subdiv. I. Petalorum inferiorum limbo integro.

D. cheilanthum, caule erecto ramoso, foliis 5-partitis, lobis oblongis acuminatis subtrifidis subdentatis, petalis calyce brevioribus, 2 inferioribus limbo obliquè inflexo (sub-) integro (non exactè integro sed apice obtusè emarginato aut vix ac ne vix bidentato), capsulis reticulatim pictis pubescentibus. Decand. syst. nat. 1. 352, 545.

Delphinium cheilanthum. Fischer in litt. (fide Decandollei).

Delphinium daouricum. Steven ined. (fide Decand.).

Delphinium foliis hirsutis. Gmel. fl. sib. 4. 187. t. 76.

Species distinctissima! Omnium longè pulcherrima! Folia hirsuta (Gmel.) *superiora breviter petiolata 5-partita, lobis oblongis subtrinerviis apice trifidis acuminatis lateralibus subbifidis; flores DELPHINII grandiflori magnitudine; calycis sepala (foliola) ovalia apice calloso submucronato; calcar rectum sepalis æquale; petala 2 superiora ut in DELPHINIO grandifloro, inferiora breviter stipitata, ad apicem stipitis inflexa limbo ovato obtusissimo apice emarginato aut vix ac ne vix bidentato propè basin ciliato in medio disci barbato.* (Fischer). Capsulæ tres pubescentes, membranaceæ, subinflatæ, ad dorsum venis nigricantibus anastomosantibus reticulatæ, stylis persistentibus mucronatæ. *Species omnino media inter DELPHINIUM grandiflorum et alia Delphinastra.* Decand. locc. cit.

A very distinct richly coloured species of dwarfish growth, recently introduced, and not mentioned in any record of our gardens. First published by M. Decandolle from samples collected in that part of Siberia which lies beyond Lake Baikal, and also in the vicinity of Doroninsk in the province of Daûria. Seed has been lately procured from the gardens at Moscow through the means of Dr. Fischer, and the plant raised in several of the nurseries about London, where it is treated as a hardy perennial and flowers about June.

The species does not come strictly under the head of those with the limb of the lower petals entire or even, though

placed there by M. Decandolle, since the limb is manifestly indented; but is rather the intermediate link between *grandiflorum*, the limb of the lower petals of which is entire, and that section of *Delphinastrum* where this is bifid.

The figure from a dried plant in Gmelin's work, referred to above, is very characteristic and a certain synonym; but the term *hirsutus* applied to the foliage in the description implies, in our view, rather a more conspicuous kind of pubescence than is present in the cultivated samples, whose fur, although dense and uneven, is short. The flowers are said to vary to cream-colour.

Leaves subtomentosely furred of a dark blackish green, 3-5-parted, lobes oblong trifold taper-pointed lateral ones subbifid; *flowers* about the size of those of *DELPHINIUM grandiflorum*, of a very deep blue colour; *leaflets of the calyx* oval with a callously thickened submucronately pointed summit; *spur* straightish, equal to the leaflets; *two upper petals* just as in *grandiflorum*, *lower ones* shortly stipitate (stiped), inflexed at the top of the stipe with a very obtuse ovate limb indented at the top, scarcely bidentate, ciliated (fringed) near the base, bearded in the centre of the disk. *Capsules* three, furred, membranous, subinflated, reticulately marked at the back with black inosculating veins; mucronately pointed by the permanent styles.

The drawing was taken at Messrs. Colville's nursery in the King's Road, Chelsea.



PÆONIA mollis.
Downy-leaved Pæony.

POLYANDRIA DIGYNIA (v. potius PENTAGYNIA).

Nat. ord. RANUNCULACEÆ. Decand. syst. nat. 1. 127. Div. II. Ranunculaceæ spurix, *Nempè antheris introrsis donatæ.*
PÆONIA. Suprà vol. 5. fol. 379.

P. mollis, foliolis ovali-lanceolatis planis lobatis imbricatis subtùs cæsiopilosis, lateralibus subsessilibus, germinibus tomentosis rectis. *Anderson in trans. linn. soc.* 12. 282.

Pæonia mollis. *Sweet hort. sub. lond.* 124.

Pæonia villosa. *Desfont. cat. h. par. ed. 1. 126?*; (*si ita sit malè à Decandollæo ad PÆONIAM humilem relata.*)

Radicis fibræ longæ, tuberibus longis terminatæ. Caulis pedalis et ultra, rigidus, strictus, pilosiusculus, densè foliosus. Petioli breves, suprà glabri, subtùs pilosiusculi; partiales undique pilosi. Folia dodrantalia, inæqualitèr subtritermata, complanata, horizontalia, saturatè cæruleo-viridia. Foliola lateralialia, subsessilia, extùs decurrentia, profundè lobata, lato-lanceolata, plana, obtusa, imbricato-congregata venis fuscis parallelis, subtùs densè pilosa, glauca; suprà glabra, nitidiuscula. Bractææ foliaceæ, integræ v. incisæ. Calycis foliola obtusa, exteriora pubescentia, integræ. Germina 2-3 rectiuscula, adpressa, apice distantia, mollitèr pubescentia pilis ferrugineis. Semina æqualitèr ovata rugosiuscula, nitida. *Anderson in loco citato.*

“Although the Pæony here given is perhaps the least beautiful of that splendid genus, yet as it has not been any where described except in the place referred to, nor been figured in any publication, we feel ourselves authorized to lay it before our readers.”

“Mr. Sabine, from whose collection the plant was described by the late Mr. George Anderson, procured it from Messrs. Loddiges and Sons, under the erroneous name of *anomala* (denoting a very distinct species); it had been cultivated some years in the nursery at Hackney, having been raised from seeds sent to the proprietors by Professor Pallas. It flowers in the month of May, and is probably a native of the southern districts of the Russian Empire, in or bordering upon the Crimea.”

“The Downy-leaved Pæony is easily distinguished from its congeners by dwarf growth and rigid habit, by the peculiar crowding and overlapping of the lobes of the foliage, the upper surface of which is of a dark opaque green, and the

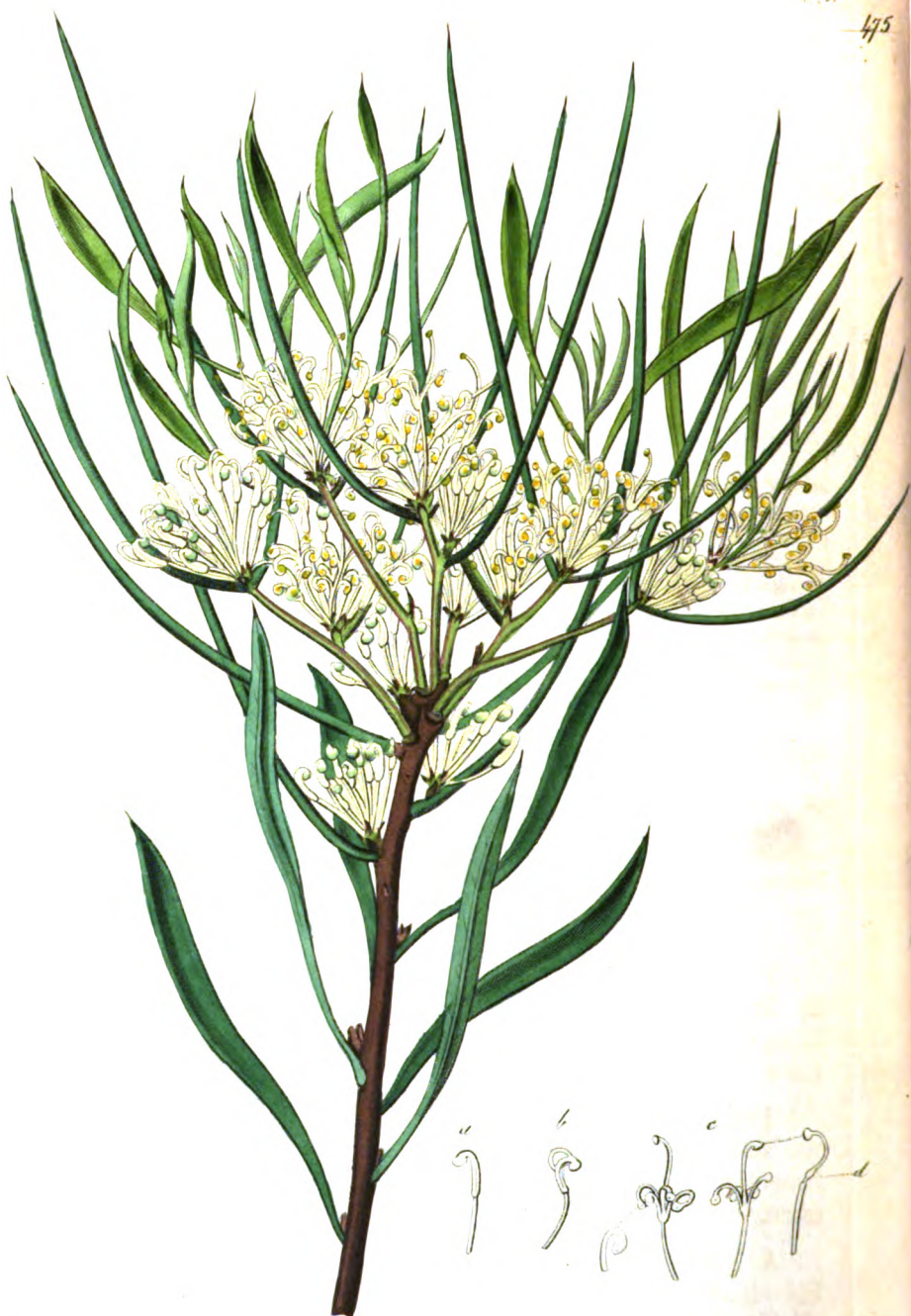
under very glaucous and woolly. The flowers are a dark purplish red, and appear imbedded in the leaves."

"*PÆONIA villosa* of the French Gardens seems to be a variety of this species, and consequently is improperly referred by Desfontaines in the Catalogue of the plants of the Royal Garden at Paris to *PÆONIA humilis*." Sabine MSS.

We have to thank Mr. Sabine, the Secretary of the Horticultural Society, for the liberal permission to engrave the annexed drawing by Mr. Hooker, and also for the communication of the above account of this nearly unnoticed species.

"Linnæus remarks, that though the most natural number of the germens in this genus is, in his opinion at least, two, they are often more numerous; but he thinks they scarcely ever amount to five. Some newly discovered species however contradict this, and indeed most of the old ones afford reasons, at one time or other, for the union of the Linnean Orders from *Digynia* to *Pentagynia*, in the Class *Polyandria*, into one; which is sanctioned also by *DELPHINIUM*, *ACONITUM* and others." *Smith in Rees's cyclop. in loco.*

The type of the genus seems confined to the northern hemisphere. No species has been observed in America.



M. H. B. 1820

Collected by J. B. Smith, 17. November, August 1. 1820

J. B. Smith

HAKEA microcarpa.

Small-fruited Hakea.

TETRANDRIA MONOGYNIA.

Nat. ord. PROTEÆ. Jussieu gen. 78. Div. II. Fructus 1-loc. polyspermus.

PROTEACEÆ. Brown in trans. linn. soc. 10. 15, seqq. Div.

II. Fructus dehiscens. Subdiv. A. Unilocularis.

HAKEA. Cor. 4-petala, irregularis, petalis secundis, apicibus cavis staminiiferis. Anthera immersæ. Glandula hypogyna unica dimidiata. Germ. pedicellatum, dispermum. Stigma subobliquum, è basi dilatata mucronatum. Folliculus unilocularis, ligneus, pseudo-bivalvis, loculo excentrico. Semina alâ apicis nucleo longiore. Frutices rigidi, quandòque Arbores mediocres, pilis dum adsint medio affixis! Fol. sparsa, in variis varia, nunc in eodem frutice diversiformia. Fasciculi v. Racemuli sæpius axillares, in plerisque involucrati, squamis imbricatis, scariosis, caducis, rudimenta ramulorum aliquandò simul includentibus, idèdque potiùs pro gemmâ habendis, sed genus, extra tropicum saltèm, à confinis optimè distinguentibus, aliis notis in quibusdam vacillantibus. Pedicelli colorati, in racemosis geminati, paribus unibracteatis. Flores parvi, albi v. ochroleuci. Pistillum glaberrimum, stylo subdeciduo. Folliculus parietibus incrassatis. Semina atra, rarè cinerea. Brown prod. 1. 381.

Div. Capsula juxta apicem bicalcarata. Subdiv. Folia plura filiformia: aliqua plana. Brown.

H. microcarpa, foliis integerrimis glabris: rameis teretibus; infimis planis, corollis pedunculisque glaberrimis, capsulis bicalcaratis umbellatis folio multoties brevioribus. Brown prod. 1. 383.

Hakea microcarpa. Brown in trans. linn. soc. 10. 182.

Thirty-five species of this genus have been enumerated by Mr. Brown; all belonging to New Holland and Van Diemen's Island. Of these only one was observed within the tropic.

The present is of very recent introduction and not of the seventeen recorded in the last edition of the Hortus Kewensis. It belongs to a small division of the group, remarkable for some flat and more cylindrical leaves.

A greenhouse shrub, with a sweet-smelling blossom. The drawing was taken last May at Messrs. Colville's in the King's Road, Chelsea.

The following is the character of the genus from Mr. Brown's Prodromus.

Corolla of 4 petals, irregular, petals in one direction, bearing the stamens in the hollow tops. *Anthers* immersed in the hollow of the petals. *Hypogynous glandule* (small gland below the pistil) solitary, halved. *Germen* stalked, two-seeded. *Stigma* somewhat slanted, sharpening mucronately from a widened base. *Follicle* (indehiscent seedvessel) one-celled, woody, pseudo-bivalve, with a cell deviating from the centre. *Seeds* with the wing of the summit longer than the nucleus or body. The species consist of rigid shrubs, or sometimes middle-sized trees, with the hairs, when there are any, fixed down at the middle. *Leaves* scattered, of different shapes in different species, sometimes of different shapes in the same plant. *Flower fascicles* or *racemelets* usually axillary, in the greater part of the species enveloped in an involucre of imbricated scariose caducous scales, sometimes enclosing likewise the rudiments of the future branches and consequently rather to be regarded as the buds, but which serve to distinguish the genus very securely (the extratropical part of it at least) from the confining genera, while at certain points other marks are found to be less steadfast. *Pedicles* coloured, in pairs, where the flowers are in racemes, with a single bracte to each pair. *Flowers* small, white, or cream-coloured. *Pistil* quite smooth, style subdeciduous. *Follicle* with thickened walls. *Seeds* black, seldom ash-coloured.

The present species is characterized by quite entire smooth leaves; those on the branches being cylindrical, those lower down flat; by quite smooth corollas and peduncles and double-spurred umbellate capsules many times shorter than the leaves.



M. paniculata L.

Drawn by J. B. S. P. & J. B. S. P. 1821

J. B. S. P.

DIOSMA lanceolata.

Lance-leaved Diosma.

PENTANDRIA MONOGYNIA.

Nat. ord. RUTACEÆ. Jussieu gen. 269. Div. III. Genera Rutaceis affinia.

DIOSMEÆ. Brown gen. rem. in append. to Flind. voy. 2.

545.

DIOSMA. Suprà vol. 5. fol. 366.

Div. Agathosma. Filamentis alternis sterilibus cochleari-petaloideis.

D. lanceolata, foliis ellipticis obtusis glabris (utrinque pilis raris: in notâ).

Linn. syst. nat. ed. 12. 2. 625; (sub HARTOGIA lanceolatâ.)

Diosma lanceolata. Mill. dict. ed. 8. n. 5. Linn. syst. veg. Murr. 239.

Willd. sp. pl. 1. 11. 37; (excluso syn. Thunbergii.) Hort. Kew. ed. 2.

2. 31; (exclusâ phrasi specificâ Willdenovii speciem omninô alienam intellgentis).

Bucco obtusa oblonga. Wendl. collect. 1. 47. t. 14?

Hartogia lanceolata. Linn. syst. nat. ed. 12. 2. 625.

Fruticulus dumosus subpedalis, resinam strenuissimè redolens, pubescens, ramis villosis foliosis. Fol. patentia, numerosa, sparsa, approximata, crassa, lanceolato-oblonga, obtusiuscula, $\frac{1}{2}$ uncia vix longiora, suprà plano-convexiuscula pilis raris, margine et costâ subtus pilis longioribus ciliata, à prono glanduloso-punctata pallidiora. Flores terminales, convexo-umbellati, roseo-subrubentes v. lilacino-albicantes, parvuli: pedicelli vix longiores floribus, hirsuti, globulis resinosis consiti, rubidi, recti. Cal. bis brevior corollâ, pubescens, glandulosus, infernè rubescens, supernè virescens, segmentis erecto-patentibus obtusis crassis. Cor. pet. campanulato-patentia, distantia, ligulata, angustius spathulata, concolora, laminâ oblongâ obtusâ planâ, ungue lineari villosiusculo. Fil. 5 sterilia erecta, breviora corollâ, petalodea, petalis opposita, lineari-ligulata, infernè plana pilosa, supernè convoluto-concava, apice cochleariformia rotundata. Stam. 5 fertilia successivè excrecentia, corollam exsuperantia, diffusè patentia, primò ad medium replicata indè sensim arrigenda, filamentis glabris setaceis, antheris parvulis erectis à basi infixis ovato-rotundis flavis. Germ. viride, glabrum, disco crateriformi immersum, tricollè apiculis fuscis: stylus setaceus, albus, glaber, apiculorum germinis intermedius.

A Linnean species, involved in some obscurity by an inadvertence of Willdenow in identifying it with a plant to which Thunberg had affixed the same name, under the impression of its being the same thing, but which a critical review proves to be of a very different nature. We know by the sample that the present is the species intended in the Hortus Kewensis, notwithstanding its having been enumerated in the last edition of that publication by the phrase descriptive of Thunberg's plant.

The figure quoted in the synonymy from Wendland we think is meant for this plant, notwithstanding the bractes shown on the pedicles, which we never observed in any sample we saw. It may also be the *Diosma pubescens* of Willdenow's "Enumeratio;" but clearly not that of his "Species Plantarum," where it was adopted from Thunberg, and prefixed to an inappropriate synonymy; a circumstance we have noticed in the article *Diosma ciliata* (vol. 5. fol. 366). In Thunberg's *pubescens* the leaves are described as lanceolate, three-cornered and villous; in the *pubescens* of Willdenow, in his "Enumeratio," as oblong slightly pointed and fringed along the edge and midrib; while the figure we have quoted above from Wendland is adduced for the synonym of one of the varieties into which it is divided.

From *ciliata*, to which it has a near affinity, it may be at once distinguished by a germen with a bare smooth top instead of one with the top clothed with a shaggy pubescence.

Native of the Cape of Good Hope; requiring the same treatment as the hardier kinds of Heaths from the same quarter. Cultivated by Miller in 1768, in the Physic Garden at Chelsea.

A small bushy shrub, seldom much more than a foot high, exhaling a very strong resinous smell, especially when rubbed or bruised, furred; *branches* villous, leafy. *Leaves* substantial, spreading, numerous, scattered, near, lanceolately oblong, slightly blunted, scarcely exceeding a quarter of an inch in length, flat with a slight rise on the upper surface where they are furnished with a few straggling hairs, fringed with longer hairs at the edge and along the underside of the midrib, paler underneath with dotlike glands. *Flowers* small, terminal, convexly umbelled, often rosy red, sometimes nearly white: *pedicles* hardly longer than the flowers, reddish, straight, shaggily furred, bespangled with crystallized resinous globules. *Calyx* twice shorter than the corolla, glandular, furred, reddish below, greenish above, segments blunt thick. *Petals* campanulate, spreading, standing apart, ligulate, narrowishly spatulate, of one colour; lamina or blade oblong blunt flat; unguis (claw or stand) linear villous. *Sterile filaments* 5, one opposite to each petal, shorter than the corolla, petal-like, linearly ligulate, at the lower

part hairy flat, at the upper convolutely concave, at the top hollowed like the bowl of a spoon and rounded. *Fertile stamens* 5, acquiring their due length in succession, overtopping the corolla, diffusely spread, at first replicate at the middle, gradually straightening: *filaments* setaceous, smooth: *anthers* small, upright, fixed on at the base, ovately rounded deep yellow. *Germen* green, smooth, set in a cupped disk, triply pointed, points dark: *style* setaceous, white, smooth, placed amidst the points of the germen.

Drawing done at Messrs. Colvilles, King's Road, Chelsea.



MELALEUCA squamea.

Scaly-branched Melaleuca.

POLYADELPHIA ICOSANDRIA.

Nat. ord. MYRTI (MYRTACEI). *Jussieu gen.* 322. *Div. I.* Flores in foliorum axillis aut in pedunculis multifloris oppositi. Folia plerumque opposita et punctata.

MELALEUCA. *Suprà vol. 2. fol. 103.*

Div. Folia alterna.

M. squamea, foliis ovatis lanceolatis acuminatis trinerviis: novellis ramulisque villosis, capitulis globosis pubescentibus, phalangibus 5-6-(9) andris: unguibus petalis brevioribus. *Brown in Hort. Kew. ed. 2. 4. 412.*

Melaleuca squamea. Labillard. nov. holl. 2. 28. t. 168.

Frutex erectus, subverticillato-ramosus, ramis teretibus, novellis villosis. Fol. tam opposita quàm sparsa, patentissima, intervallis longiora, elliptico v. ovato-lanceolata, cuspidato-acuminata, nervosa nervis parallelis, brevissimè petiolata, novella villosa subtusque hirsutiora. Flores lætè lilacini, basi ramulorum in capitulum subovatum v. globosum foliis floralibus brevioribus hirsutissimis confertis subtensum congesti, foliolis bracteaceis interstincti. Cal. oblongus, turbinato-campanulatus, pallidè virens, sublanato-villosus, segmentis ovatis triangularibus erectis, intus concavis saturatè viridibus. Petala corollæ lilacina, obovata, convoluta-concava, 3-plo breviora staminibus, 2-plo longiora segmentis calycis vel magis, unguiculata, margine erosa. Phalanges staminei 5 lilacini, polyandri, ungue brevissimo vel subnullo: antheræ luteæ. Pistilla quanta coram habuimus abortiva v. cassa.

This lively flowered shrub is not uncommon in our greenhouses, though it has not yet been represented by any figure from the living plant.

A native of Van Diemen's Island. Introduced by Mr. Brown in 1805.

The specific name has been suggested by the peeling of the bark on the older branches of the plant in short scale-like strips along the intervals of the foliage.

An upright shrub; *branches* produced nearly in whorls, round, young ones villous. *Leaves* both oppositely and scatteredly disposed, wide-spread, longer than the intervals, elliptically or ovately lanceolate, long taper-pointed with parallel nerves, very shortly petioled, new ones villous more shaggily so underneath. *Flowers* of a lively lilac-red, produced at the base of the new branches in subovate or globular

heads subtended by crowded shorter and very shaggy floral leaves, separated one from the other by bractelike leaflets. *Calyx* oblong, turbinate campanulate, pale green with a woolly-villous fur; segments ovate triangular upright concave on the inside and deep green. *Petals of the corolla* lilac-red, obovate, convolutely concave, three times shorter than the stamens, three times longer than the segments of the calyx or more, unguiculate (i. e. with a narrow claw or stand), eroded at the edge. *Stamineous fascicles* 5, of from 5 to 9 stamens, lilac-red, with very short nearly obsolete stands: *anthers* yellow. All the *pistils* we examined were imperfect.

The drawing was taken in May, at the nursery of Messrs. Colville, in the King's Road, Chelsea.



LYCHNIS fulgens.

Siberian Lychnis.

DECANDRIA PENTAGYNIA.

Nat. ord. CARYOPHYLLÆ. Jussieu gen. 299. Div. V. Calyx tubulosus. Stamina 10 (alterna hypogyna, alterna sæpius epipetala). Styli duo aut tres aut quinque.

LYCHNIS. Cal. tubulosus 5-dentatus. Petala 5 unguiculata, limbo sæpè fissa. Styli 5. Caps. 3-locularis 5-valvis. Flores sæpè corymbosi terminales, rariùs spicato-paniculati, in LYCHNITE alpinà et LYCHNITE quadridentatà interdum 4-styli, in LYCHNITE dioicà abortu dioici. Fructus in L. viscaria 5-locularis, in L. Flore Cuculi multilocularis. Juss. loc. cit. 302.

L. fulgens, hirsuta, floribus solitariis, foliis oblongis. Sprengel cent. sp. pl. minus cogn. 26. n. 55.

Lychnis fulgens. Fischer ined. (fide Sprengelii). Curtis's magaz. 2104.

Herba hirtiùs tomentosa; caulis subsesquipedalis erectus ramosissimus, ramis supernis floriferis trichotomo-cymosis, floribus brevissimè pedunculatis, medio singularum trichotomiarum ebracteato, lateralibus bibracteatis, bracteis calycem subæquantibus. Fol. opposita, decussato-distantia, sessilia, oblongo-ovata, acuminata. Cal. oblongus, lanatus, cylindræus, 10-anguloso-plicatus, intus glaber, dentibus 5 acuminatis. Cor. aurantiaco-coccinea, diametro sesquiunciali vel majori, limbo stellato-explanato; petala dorso carinata, laminà cuneato-obcordatà 4-fidà, lobis inæqualissimis, mediis 2 multotiès majoribus distantibus lineari-oblongis obtusissimis apice denticulato-erosis, lateralibus duplo brevioribus, angustissimis, lineari-subulatis; ungue æquante calycem, intus margine lanato-ciliato, parum breviorè laminà. Corona pelle limbi posita, è paribus 5 squamularum dentiformium recumbentium igneo-rutilantium. Stam. tubo subinserta, alternè 5 tardiora, 5 petalis inserta, 5 stipite germinis: anth. incumbentes, coccineæ. Styli 5 simplicissimi, inclusi. Germ. viride, glabrum, oblongum columellà brevi innitens.

It is not an easy matter to point out in what respects this new and brilliant acquisition is to be discriminated from the well-known "Scarlet Lychnis" (*L. chalcedonica*), if we except the differences of dimension. In *fulgens* the leaves are broader and proportionately shorter, the stem is scarcely one third the height of that of *chalcedonica*; in *fulgens* the flowers are several times larger, and the two outer segments of the petals longer and more perfectly defined than in *chalcedonica*, where they are mere toothlike rudiments; in *fulgens* the branches which support the flowers are greatly more extended, and farther apart, thus giving an incomparably wider breadth to the inflorescence than in *chalcedonica*, where the flowers are nearly sessile, and very compactly

disposed. In all other things the two are extremely alike; flower at the same time in the open ground; and probably belong to the same regions; *fulgens* being specially stated to come from Siberia, *chalcedonica* in a more general way from Russia.

The plant seems to have been originally observed by Dr. Fischer, by whom it was communicated to Professor Sprengel, and by him first published in the tract we have quoted. It was raised by several of our nurserymen the year before last from seed ripened in the Berlin Garden. Plants of the first year seldom produce more than from one to three flowers. The drawing was taken from a plant of two years growth, which flowered in June, in the nursery of Messrs. Colville, in the King's Road, Chelsea.

We should have observed, that the pubescence is softer and more curled in *fulgens* than in *chalcedonica*.



PANCRATIUM zeylanicum.

One-flowered Sea-Daffodil.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. Jussieu gen. 54. Div. II. Germen inferum.

AMARYLLIDÆE. Brown prod. 1. 296. Sect. I.

PANCRATIUM. Suprà vol. 3. fol. 221.

Div. I. *Floribus petiolatis v. subsessilibus: limbo radiato: excisuris senis coronæ staminiferis.* Nob. in journ. of scien. and the arts. 3. 317.

P. zeylanicum, unilorum; foliis lorato-lanceolatis, subtus glaucis; laciniis corollæ longioribus tubo, supernè revolutis; staminibus erecto-incurvescentibus.

Pancratium zeylanicum. Lin. sp. pl. ed. 2. 1. 417. Willd. sp. pl. 2. 41.

Hort. Kew. ed. 2. 2. 218. Nobis in journ. of scien. and the arts. 3. 317.

Pancratium tiaræflorum. Parad. londin. 86.

Narcissus zeylanicus, flore albo hexagono odorato. Herm. lugdb. 691. t. 693. Commel. hort. amst. 1. 73. t. 38.

Lilium javanicum. Rumph. amboin. 6. 161. t. 70. fig. 2.

Bulbus ovato-globosus collo vaginoso, diametro sesquiunciali. Folia bifaria, 3-12 (in exemplaribus omnibus quæ vidimus 2-3), 6-12-uncialia, ubi latiora unciam transversa vel circà, costâ mediâ subtus prominente. Scapus foliis brevior, tereti-subcompressus, striatus, non glaucus. Flos albus, gratissimè odoratus, amplus, uncias $4\frac{1}{2}$ longus v. circà, tenuis, tener, erectus, brevissimè intra spatham pedicellatus. Spatha folliculosa (v. latere altero dehiscens), membranacea, lineari-lanceolata, bracteolam pedicello brevi appressam in se continens. Corollæ tubus unciam unam parùm excedens, subvirescens, 3-plo brevior limbo: limbus radiato-revolutus, pro dimidio suo ferè coronæ adnatus, laciniis distantibus, linearibus, lateribus infernè replicatis: corona profundè æqualitèrque 12-fida, rotata, lobulis per paria contiguè acuminatis sinibus staminiferis latioribus rotundatis distinctis. Filam. parùm breviora limbo, multotiès longiora dentibus coronæ, erecto-conniventia. Germ. viride, oblongum, duplo brevius tubo, exangulosum, esulcatum, loculis biseriatim cumulatèque polyspermis: stylus longitudine corollæ; stigma simplicissimum, puberulum.

An exceedingly rare plant in our collections, where indeed we had never met with it till this summer, when several samples were in blossom at the same time in Mr. Griffin's hothouse at South Lambeth: where the bulbs had been lately imported from the Island of Ceylon; the country to which the species belongs.

Cultivated by Miller, at the Physic Garden, Chelsea, in 1752; and had been most probably procured from the gardens in Holland.

Bulb ovately round with a sheathy neck, about an inch and a half in diameter. *Leaves* bifarious, lorately-lanceolate, in all the samples we saw from two to three, 6-12 inches long, about an inch broad at the widest part, glaucous at the under side with a projecting midrib. *Scape* one-flowered, shorter than the leaves, round and slightly compressed, streaked, not glaucous. *Flower* white, large, about four inches and a half long, thin and tender, upright, shortly stalked within the spathe. *Spathe* follicular (of one piece and opening on one side), membranous, linearly lanceolate, inclosing a very small closed-pressed bracte. *Tube of the corolla* but little above an inch long, greenish, three times shorter than the limb; *limb* radiate, adhering to the crown for near half its length; segments distant, linear, revolute at the upper part, reflexed along that portion of their sides which adheres to the crown. *Crown* deeply and evenly twelve-cleft, rotate, lobes taper-pointed, contiguous by pairs, each pair separated from the other by a wider rounded stamenbearing sinus. *Filaments* upright, inclining inwards, little shorter than the limb, several times longer than the lobes of the crown. *Germen* green, oblong, twice shorter than the tube of the flower, uncornered, furrowless, with many seeds lying one upon the other in two rows; *style* the length of the corolla; *stigma* a simple bluntish slightly pubescent point.

A very desirable acquisition for the hothouse, where it requires little care, takes up only a small space, lasts some time in beauty, and is very sweet-scented.



PLUMERIA bicolor.

Bicolor Plumeria.

PENTANDRIA MONOGYNIA.

Nat. ord. APOCYNÆE. *Jussieu gen.* 145. *Div. I.* Germen duplex. Fructus bifollicularis. Semina non papposa.

PLUMERIA. *Cal.* minimus, quinquefidus. *Cor.* infundibuliformis, tubo tenui tereti; fauce esquamata; limbo infundibuliformi, quinquepartito, laciniis obliquis. *Stamina* basi tubi corollæ inserta, inclusa, libera: *antheræ* conniventes. *Ovaria* (*germina*) duo, annulo carnosio immersa: *styli* duo, breves: *stigma* incrassatum, apice emarginatum. *Folliculi* ventricosi, deorsum flexi: *semina* infernè membranaceo-alata. *Arbores aut arbusculæ lactescentes.* *Folia magna, alterna, integra et integerrima.* *Flores spiciosi, terminales, corymbosi, incarnati, rosei, albi et lutescentes.* Kunth nov. gen. et spec. 3. 229.

P. bicolor, foliis oblongis, acuminatis, marginibus planis, corolla albo-lutea. Ruiz et Pavon fl. peruv. 2. 21. t. 141.

Plumeria alba; β . *fragrans.* Kunth nov. gen. et spec. 3. 230; (*PLUMERIA albâ Linnæi toto cælo distans*).

Yuraccarhuas Suche. *Peruvianis.*

Arbor quinqueorgyalis: truncus erectus, teres, cinereus, comâ subrotundâ magnâ: rami dichotomi, crassi, medullosi. *Folia sparsa in summitatibus ramulorum, oblonga, acuminata, integerrima, plana, venosissima.* *Petiolii basi biglandulosi.* *Pedunculi terminales, striati, glabri (in nostrâ plantâ lanuginosi v. subvillosi), multiflori, pedicellis bracteolis ovatis deciduis suffulti.* *Flores corymboso-umbellati, gemini.* *Cal. viridis, quinquecrenatus.* *Cor. magna, albo-lutescens; tubus curvatus; faux intensè lutea; limbus albo-lacteus.* *Folliculi bipalmæres et ultrâ, rubro-fusci: semina fusca, alâ longè albicante.* Ruiz et Pavon. loc. cit.

We have been furnished with the sample of this rare plant through the kindness of Mr. Lambert; who has cultivated it for several years in his hothouse at Boyton, in Wiltshire, where it was introduced from Jamaica; most probably from some garden. It is a very different species from the *PLUMERIA alba* of Linnæus, which belongs to that Island. There the leaves are very narrow in proportion to their length, long-pointed, and revolute at the margins. As far as we can judge from the description and figure, we have scarcely a doubt that our plant is the *PLUMERIA bicolor*: the "Flora Peruviana," as well as the plant intended by Messrs. Humboldt and Bonpland in the place we have quoted above. Not having seen the sample while fresh,

nor had an opportunity of comparing it with *rubra*, we are not prepared to say in what respects the two differ beyond colour. However both Mr. Lambert and Mr. Donn his librarian, who have observed them while growing together in the hothouse, believe the two to be essentially distinct.

We should observe, that the stalks of the inflorescence are described as smooth or bare in the *bicolor* of the *Flora Peruviana*; in our specimen they were slightly villous or downy, the down being however very slightly attached and tender, probably deciduous?

The blossom is delightfully fragrant.

The shrub, or rather tree, is said to grow to the height of about forty feet in its native place. The young wood abounds with a milky juice, is soft and pithy.

Native of South America.



H. Hart del.

Del. by J. Walp. 176. Botanical Magazine, 1827.

J. Walp. sc.

CALYCANTHUS lævigatus.
Dark-flowered scentless Allspice.

ICOSANDRIA POLYGYNIA.

Nat. ord. CALYCANTHEÆ. Lindley Suprà vol. 5. fol. 404.
CALYCANTHUS. *Suprà vol. 5. fol. 404.*

C. lævigatus, foliis oblongis sensim acuminatis, subrugosis, utrinque viridibus glabris: ramis strictissimis. *Lindley MSS.*

Calycanthus lævigatus. *Willd. hort. berol. 1. 80. t. 80. Ejusd. enum. 1. 559. Pursh amer. sept. 1. 358.*

Calycanthus fertilis. *Andrews's reposit. 539; (pessimè).*

Calycanthus ferax. *Michaux bor. amer. 1. 305; (fide Pursh.)*

Frutex CALYCANTHO fertili (suprà vol. 5. fol. 404.) simillimus; sed rami strictiores, folia oblonga, sensim acuminata, utrinque viridia nec subtus glauca; flores colore multoties intensiore, odore tamen æquè carentes; perianthii laciniae angustiores quandòque semierpanse. Fructus ignotus. Lindley MSS.

For this very uncommon species of Allspice, we have to thank Mr. Sabine, by whom a sample was obligingly communicated from the garden of his residence at North Mimms, in Hertfordshire.

Native of North America, and very like **CALYCANTHUS fertilis**, which forms the subject of the 404th article of this publication. The principal differences between the two species consist in the leaves of the present plant being much more acuminate (taper-pointed) than those of **CALYCANTHUS fertilis**, and destitute of that glaucous hue, so remarkable on the under side of those of the latter as well as of the well-known Carolina Allspice (**CALYCANTHUS floridus**). The flowers of *lævigatus* are also much darker than in *fertilis*, and the segments much narrower, but in both differ from those of *floridus* in being destitute of all fragrance.

It sometimes happens that the flowers partially expand; but we have never observed them open so completely as they appear to have done in the sample from which the present figure was drawn. *Lindley MSS.*



TRADESCANTIA fuscata.

Stemless Spiderwort.

HEXANDRIA MONOGYNIA.

Nat. ord. COMMELINEÆ. Brown prod. 1. 268.

TRADESCANTIA. Cal. 3-phyllus, æqualis, persistens. Cor. 3-petala, æqualis. Stamina filamentorum pilis articulatis. Stylus simplex, stigmatē tubuloso. Capsula supera, trilocularis: semina pauca dorso vel latere embrionifera. Gærtn. sem. 1. 51.

Herbæ. Folia basi vaginantia, alterna, nervis parallelis. Involucrum conduplicatum foliiforme, inflorescentiam longè exsuperans, v. bracteola obsoleta, v. planè nullum. Flores ephemerī, modò biseriato-distachyi monostachyive, rarè solitarii: bracteis interstincti. Genus omninò extræuropeum.

T. fuscata, acaulis, ferrugineo-hirsuta; foliis ellipticis acuminatis pedunculisque 1-3-floris? radicalibus.

Tradescantia fuscata. Loddiges's bot. cab.

Acaulis. Folia plura, lata, crassiuscula, radicalia, ambientia, recumbentia, patentia, 3-4-uncialia v. ultrà, lanceolato-elliptica v. ovata, ferrugineo-hispida nervis longitudinalibus utrinque convergentibus, pubescentiâ à pronò densius hirsutâ: petioli breves, canaliculato-convoluti subtilis hispidissimi. Pedunculi radicales, 1-3?-flori multùm breviores foliis, erecti, hispidi. Calyx ferrugineo-hirtus, segmentis oblongis. Genitalia alba.

The *Commelineæ*, of which the present genus is a co-ordinate, were comprised in the *Junceæ* of Jussieu, but have been since detached by Mr. Brown, and the group defined by the following character. *Calyx* three-parted. *Corolla* of three petals, with the unguis sometimes connate (united). *Stamens* six or sometimes fewer, hypogynous (inserted below the pistil), a part of them often either antherless or with othershaped anthers. *Germen* 2-3-celled, with few-seeded cells: *style* single: *stigma* single. *Capsule* 2-3-celled, 2-3-valved, valves septiferous (partitionbearing) along their middle: *seeds* generally two, and inserted at the inner angle of the cell. *Embryo* trochleate (pulled or like a short cylinder constricted at the middle), sunk in a hollow of the solid-fleshed albumen opposite the umbilicus. All the genera consist of herbaceous plants with leaves that are generally sheathing at the base.

TRADESCANTIA differs from COMMELINA in having six uniform anthers.

Although the type of this singular genus is not represented by one species within the bounds of Europe; yet owing to the long standing popularity of the Common Virginian Spiderwort (*TRADESCANTIA virginica*), a nearly universal ornament of our flower-borders for almost two centuries, its features are as familiar to Europeans as those of any one of their native flowers.

The present species has been newly observed; being said to have been introduced about three years ago from the Brazils. The drawing was taken the summer before last from a sample that flowered in the hothouse in Mr. Lee's nursery at Hammersmith. It is remarkable for having no appearance of any stem; and being covered throughout (except at the corolla) by a rough tawny-brown fur, thickest at the underside of the foliage. The *leaves* broad, thickish, radical, several, ambiently scattered, recumbent, spreading, about three or four inches long or perhaps more, lanceolately elliptical or ovate, fur rusty-brown, hispid, thickest at the underside of the leaf, nerves longitudinal converging at each end. *Petioles* short, convolutely channelled; peculiarly hispid underneath. *Peduncles* hairy, radical, 1-3?-flowered, upright, much shorter than the leaves. *Calyx* hispid; *segments* oblong. *Stamen* and *pistil* white.



M. Hort. del.

Pubby J. Ridgway 170. Recordilly Sept. 1. 1820.

J. Smith. sculp.

ANCHUSA italica.

Italian Bugloss.

PENTANDRIA MONOGYNIA.

Nat. ord. BORRAGINÆ. Jussieu gen. 128. Div. IV. Fructus gymnotetraspermus. Faux corollæ instructa 5 squamis calcarum instar cavis, intra corollam prominulis in ejusdem laciniarum basi, extrâ hiulcis. Herba plerumque asperifolia.

BORAGINÆ. Brown prod. 1. 492.

ANCHUSA. Cal. 5-fidus s. 5-partitus. Cor. infundibuliformis, fauce clausa fornicibus erectis, obtusis. Nuces 4, uniloculares, turbinatæ, fundo calycis affixæ, basi concavæ perforatæ. Lehmann asperifol. 1. 211.

Div. I. Calycibus 5-partitis in fructu erectis; corollis in pluribus inæqualibus. Lehm. l. c.

A. italica, caule erecto ramoso, foliis lanceolatis undulatis strigosis lucidis, racemis conjugatis divaricatis paniculatis bracteatis, calycibus tubo corollæ subæqualis longioribus: laciniis subulatis, fornicibus penicilliformibus. *Lehmann asperifol. 1. 230; (sub ANCHUSÂ paniculatâ).*

Anchusa italica. Retz. obs. 1. 12; (cujus exemplar prototypum in Herb. Banks.) Trew pl. rar. 14. t. 18. Willd. sp. pl. 1. 756. Ejusd. enum. 1. 178. Hort. Kew. ed. 2. 1. 289.

Anchusa paniculata. Lehmann loc. cit. exclusis Hort. Kew. synonymisque omnibus ad plantam madeirensis orientalemque referentibus.

Buglossum foliis linguiformibus asperis, spicis supremis gemellis. Hall. helv. n. 599; (exclusis synonymis).

Buglossum italicum flore cæruleo Besleri. Hort. cystet. æstiv. ord. 8. fol. 5.

Buglossa vulgaris. Ger. emac. 798; cum ic.

Caulis erectus, strictus, teretiusculus, 2-3-pedalis et longior, ramosus, uti tota planta hispidus: pilis patentibus rigidis, tuberculis callosis insidentibus. Rami patentes, in racemos abeuntes. Folia radicalia et caulina inferiora petiolata, in petiolum supra planum attenuata, lanceolata, acuta, undulata; superiora sessilia; summa basi cordato-ovata et ultra medium in acumen attenuata; omnia utrinque strigosa, profundè viridia, sublucida. Racemi caulem et ramos terminantes, bipartiti flore centrali in dichotomiâ bracteis linearibus longitudine pedicellorum adpersi, laxi, divaricati, in summo caule paniculam constituentes. Pedicelli erecto-secundi, distantes. Calyces longitudine pedicellorum, piloso-hispidi, usque ad basin 5-partiti: laciniis subulatis inæqualibus. Cor. cærulea v. violacea; tubus cylindricus calyce brevior; limbus patens 5-partitus, laciniis inæqualibus obovatis rotundato-obtusis. Fornices erecti, penicilliformes. Nuces 4, ovato-oblongæ, reticulato-rugosæ, basi margine turgido cinctæ. Lehmann loc. cit. sub ANCHUSÂ paniculatâ.

A species judiciously distinguished from *officinalis* and *angustifolia* by Retzius, whose prototype specimen is preserved in the Banksian Herbarium; where we find also that

from which *paniculata* of the Hortus Kewensis was instituted. The first belongs to the South of Europe, the seed of the latter was brought from the Island of Madeira by Mr. Masson; yet the two have been subsequently united into a same species by Sir James Smith, as editor of the Flora Græca, and by M. Lehmann in a late Monograph of this tribe of plants. In our judgment the Levant plant of the Flora Græca is plainly the same as the Madeira one; but on the other hand both appear to us distinct from *italica*, the European plant, which is taller and of a more succulent habit, with broad upper cauline leaves ovate and conspicuously cordate (indented) at the base, a circumstance which does not belong either to the specimen of the Madeira plant or to the Levant one, if we are to judge from the figure in the Flora Græca, while it is most obvious both in Retzius's specimen and in the excellent figure of *italica* in Trew's work. The distinction relied on by the learned editors of the Hortus Kewensis to separate *paniculata* from *italica*, as well as from all others of the genus, viz. that the segments of the calyx are parted from each other down to the bottom, certainly does not hold good in regard to *italica*, where the calyx is parted as far as in *paniculata*. Notwithstanding this, we have thought it safer to keep the two distinct, because of the other differences we have stated.

We know by Gerarde, that it was cultivated here in 1597.

A hardy biennial plant. *Stem* straight, roundish, from two to three feet high or more, branching, like the rest of the plant covered with a hard bristly fur, the hairs of which are spreading, and stand upon a callous tubercle. *Branches* spreading, terminating in racemes. *Radicle* and *lower cauline leaves* petioled, tapering downwards to a petiole which is flat at the upper side, lanceolate, pointed, undulate; *upper ones* sessile; *topmost ones* cordately ovate at the base and tapering to a point from above the middle; *all of them* stiffly furred, of a deep green, and rather shining. *Racemes* terminal, bipartite with a single flower in the fork, loose, divaricate, forming a panicle at the top of the stem, beset with linear *bractes* of the length of the pedicles; *pedicles* upright and pointing one way, standing wide apart. *Calyx* the length of the pedicle, hispid (stiffly furred), five-parted down to the base; *segments* subulate, unequal. *Corolla*

blue or violet coloured: *tube* cylindrical, shorter than the calyx; *limb* spreading, five-parted, segments unequal obovate, rounded at the end. *The five faucial appendages* upright, pencilled. *Nuts* 4, ovately oblong, reticulately wrinkled, surrounded at the base by a protuberant rim.



GOMPHOLOBIUM grandiflorum.

Large-flowered Air-pod.

DECANDRIA MONOGYNIA.

Nat. ord. LEGUMINOSÆ. *Jussieu gen.* 345. *Div. IV.* Corolla irregularis papilionacea. Stamina distincta, aut rarò basi coalita. Legumen uniloculare bivalve. Arborea aut frutices; folia simplicia aut ternata aut imparipinnata. = PAPILIONACEÆ. *Brown in append. to Flind. voy.* 2. 552.

GOMPHOLOBIUM. *Cal.* 5-partitus, subæqualis. *Cor.* papilionacea, vexillo explanato. *Stigma* simplex. *Legumen* polyspermum, subsphæricum, obtusissimum (glabrum). *Brown in Hort. Kew. ed.* 2. 3. 11.

Frutices (*Australiae*) facie rigidâ atque lævi. Folia ternata v. pinnata. Stipulæ è foliolis duobus minutissimis planis acutis appressis, nec ut in PULTENÆA intrafoliaceis, sed petiolum communem utrinque ad basin stipantibus, haud rarò omninò deficientibus. Flores flavi (v. purpurascetes,) plerùmque numerosi, ampli, speciosi. *Smith in Rees's cyclop.* (ex anglico verso).

G. grandiflorum, foliis ternatis, linearibus, rectis, ramis angularibus, glabris; carinâ imberbi. *Smith exot. bot.* 1. 7. tab. 5; (ex angl. vers.)

Gompholobium grandiflorum. *Smith in trans. linn. soc.* 9. 249. *Id. in ann. of bot.* 1. 505; et in *Rees's cyclop. in loco.* *Sweet hort. suburb. lond.* 90. *Gompholobium.* *Smith in trans. linn. soc.* 4. 220.

Rami angulosi, glabri, foliosi. Folia alterna, ternata, linearia, angusta, revoluta, integra, glabra, stricta, mucronata. Stipulæ parvæ. Flores lutei, speciosi; racemi 2-3-flori, ramorum lateraliū terminales, bractea parvâ concavâ squamiformi ad basin cujusque pedicelli. Calyx magnus, coriaceus, glaber, lanâ subtili ciliatus. Vexillum amplum. Alæ carinaque dipetala plurimū minores. Stamina omnia distincta, simplicia, glabra, longitudine subinæqualia. Germen oblongum, glabrum, breviter stipitatum. Stylus subulatus, simplex, persistens: stigma acutum. Legumen globosum, rigidum, è valvulis duobus inflatis, loculo unico: semina plura, breviter pedicellata secus suturam superiorem annexa. *Smith exot. bot. loc. cit.* (ex angl. versum).

“The habit of GOMPHOLOBIUM is marked by the compound (ternate or pinnate) leaves, and a certain aspect of rigidity and smoothness. The stipulas are not intrafoliaceous as in PULTENÆA, but stand on each side of the base of the common footstalk, being a pair of acute flat close-pressed leaves, extremely minute and often altogether wanting. The flowers are yellow (or purple) generally numerous, large and handsome. All the species as far as hitherto known, are natives of New Holland.” *Smith in Rees's cyclop. article GOMPHOLOBIUM.*

The technical character of the genus is deduced by Mr. Brown from the five-parted nearly equal *calyx*, flatly extended *vexillum* and subglobular pointless smooth many-seeded *pod*.

The drawing of the present species was made from a plant raised in Mr. Griffin's conservatory at South Lambeth from New Holland seed, and is the first taken in this country. It is not recorded in the last edition of the Hortus Kewensis; and is still exceedingly scarce. We have adopted the following account from Sir James Smith's work, having missed the opportunity of seeing the blossom.

" *GOMPHOLOBIUM grandiflorum*, remarkable for its showy yellow flowers, is a shrub three feet in height, found in a sandy soil and flowering in October. The *branches* are angular, smooth, leafy. *Leaves* alternate, 3 on a footstalk, linear, narrow, revolute, entire, smooth, very stiff and straight, tipped with a sharp straight point. *Stipules* small. *Flowers* 2 or 3 at the end of each lateral branch on simple smooth footstalks, with a small concave scaly bractea at the base of each stalk. *Calyx* large, coriaceous, smooth, except a fine woolly fringe at its edge. *Standard* very large. *Wings* and *keel* very much smaller, of two petals each. *Stamens* all distinct, simple, and smooth, somewhat unequal in length. *Germen* on a short stalk, oblong, smooth. *Style* awl-shaped, simple, with a sharp stigma, permanent. *Pod* globose rigid, of 2 inflated valves, and one cell. *Seeds* several, ranged along the upper suture of short stalks." *Smith exot. bot.* 1. 7.

The *GOMPHOLOBIUM grandiflorum* of Andrews's Repository is the *G. polymorphum* of Mr. Brown in the Hortus Kewensis.

All the species are shrubby greenhouse plants.



J. Edwards del.

Painted by J. Hodgway 170. Piccadilly Sept. 1.

1820.

J. Smith sculp.

PÆONIA albiflora. *ι. fragrans.*
Double sweet-scented Chinese Pæony.

POLYANDRIA DIGYNIA, (PENTAGYNIA?)

Nat. ord. RANUNCULACEÆ. *Decand. syst. nat.* 1. 127. *Div. II.* Ranunculaceæ spurix, *Nempè antheris introrsis donatæ.*

PÆONIA. *Suprà vol. 5. fol. 379.*

P. albiflora, herbacea, capsulis glabris, recurvatis, foliis biternatim sectis, segmentis glabris nitidis tripartitis, lobis ovato-lanceolatis. *Decand. syst. nat.* 1. 392.

Pæonia albiflora. *Synonyma suprà vol. 1. fol. 42. videnda.*

(*ι*) *fragrans.* *Anderson in Linn. trans.* 12. 260.

Double sweet-scented chinese Pæony. *Sabine in hort. trans.* 2. 278; *cum tab. pict.*

For the general account of this species we shall refer our readers to the first volume of the present publication, where *PÆONIA albiflora* is the subject of the forty-second article.

We are obliged to Mr. Sabine for a sample, and the following account of the variety before us.

“Of the double varieties of *PÆONIA albiflora*, this was the first introduced into this country; it has been cultivated in the Botanic Garden at Kew from 1805, but did not become general in the London nurseries for some years afterwards, and is still the least common of any.”

“Another double Pæony, similar to this in colour, was imported from China in 1810 by Sir Abraham Hume. That is a plant altogether of a more robust habit and with leaves more strongly wrinkled than in the one before us. The present however possesses a very pleasing fragrance, reminding us of the Rose, and is so far superior to its rival.”

“A single variety has been already figured in the Botanical Register, and notwithstanding the apparent objection to the specific name, from the flower of some of the varieties differing in colour from their prototype sample, I have not changed it; not only in regard to its priority, but also in deference to the authority of the late Mr. George Anderson, in whose elaborate Monograph of the genus, published in the Transactions of the Linnean Society, the original name has been retained. M. De Candolle has also

retained the title *albiflora* for the species in his *Systema Naturale Regni Vegetabilis*, though he was not aware of Mr. Anderson's Monograph when his work was put to press."

"I have subjoined, from Mr. Anderson's Treatise, an enumeration of all the known varieties of the species."

"*PÆONIÆ albifloræ* varietates adhucdum notæ.

"(α.) *vestalis*. *Andrews's reposit.* 64.

"(β.) *candida*.

"(γ.) *tatarica*. *Suprà* vol. 1. fol. 42. *Salisb. Paradisus Lond.* 78.

"(δ.) *sibirica*.

"(ε.) *rubescens*.

"(ζ.) *uniflora*. *Curtis's magaz.* 1756.

"(η.) *Whitleji*, flore pleno. *Andrews's reposit.* 612.

"(θ.) *Humæi*, — — *Curtis's magaz.* 1768.

"(ι.) *fragrans*, — — *Hort. trans.* vol. 2. pl. 18."

Sabine MSS.

Mr. Sabine, from whose plants the descriptions in Mr. Anderson's Treatise were taken, has long cultivated all the known species and varieties of this magnificent genus in his garden at North Mimms, in Hertfordshire; from which source the gardens of his friends and that of the Horticultural Society, have been supplied, and several complete collections derived from the original ones are still in existence.

Thirteen species of the genus have been recorded in the work of Mons. Decandolle. All belong to the northern hemisphere, and are found from Portugal to China, but not where either cold or heat is extreme. America is not known to produce any.



CACTUS speciosissimus.
Crimson-flowered Torch-thistle.

ICOSANDRIA MONOGYNIA.

Nat. ord. CACTI. *Jussieu gen.* 310. *Div. II.* Petala et stamina indefinita.

NOPALEÆ. *Jussieu ined.* (*fide Decand. théor.* 248. n. 65.)

CACTUS. *Suprà vol. 2. fol.* 137.

Div. Cerei; erecti (stantes per se).

C. speciosissimus, caule erecto, 3-4-gono; angulis dentatis; flore campanulato-patente, genitalibus declinatis. *Desfontaines in mém. du mus. d'hist-nat.* 3. 190. tab. 9.

Cactus speciosissimus. *Sweet hort. sub. lond.* 109. n. 17.

Cactus speciosus. *Willd. enum. suppl.* 31; (*non aliorum, qui suprà vol. 4. fol.* 304. *videndus*).

Caules plures, recti, carnosì, verticales, trigoni tetragonique, simplices, parùmque divisi, bi-tripediales diametro uni-biunciali crassitudine nequaquam æquabili, faciebus lævibus canaliculato-concavis, angulis subsinuatis dentatis dente quoque aculeis fasciculatis divergentibus inæqualibus lutescentibus nuncve fuscescentibus tomento albo brevi denso cinctis armato. Flores inodori, horizontales v. subnutantes, ad angulos caulinos. Cal. monophyllus, multipartitus, segmentis ad oram membranosis, in disco virentibus, exterioribus ovalibus minoribus, interioribus lanceolatis concavis inæqualibus roseo-adumbrati. Cor. patens, campanulata, subsesuncialis diametro ferè pari: petala 20-25, punicea, summo calyci adnata, exteriora lanceolata acuta, interiora elongato-ovalia, latiora. Stamina numerosa: filamenta gracilia, teretia, alba, roseo-adumbrata, declinata, fasciculato-convergentia, uti petala summo calyci adnata, inferiora superioribus sensim longiora petalisque subæqualia: antheræ oblongæ, parvulæ, à basi affixæ, polline è sphaerulis albis granuloso. Stylus crassiusculus, roseus, declinatus, teres, staminibus inferioribus brevior; stigmata 10, alba, gracilia, paulò patentia, per paria approximata. Germen cylindricum, uni-biunciale, obiter sulcatum, ad angulos è squamulis obtusis singulis aculeolarum setacearum fasciculo armatis squarrosum. *Desfontaines loc. cit. (ex gallico versum).*

This splendid-flowered plant has been recently added to our collections by the Comtesse de Vandes, and blossomed for the first time in the hothouse of the well-ordered botanic establishment of that lady at Bayswater, where our drawing was made in July last. The flower is not only beautiful, but has the additional advantage of enduring several days in perfection. It is said to have been first procured at Paris from the national garden at Madrid by the Comte de Salm, and is supposed to have been originally derived from Mexico.

The order *Cacti*, of Jussieu, has been lately divided into *Nopaleæ* and *Grossulariæ*.

Stems several from one stock, straight, fleshy, upright, three and four cornered, simple, but little branched, 2-3 feet high, 1-2 inches in diameter, of unequal thickness, sides smooth channelled, angles shallowly sinuous, notched, furnished at the under edge of each notch with a pencil of unequal diverging tawny or brownish spines, set in a short dense cottony tuft. *Flowers* without scent, horizontal or slightly nodding, produced at the angles of the stems. *Calyx* of one piece, multipartite, segments membranous round the periphery, green at the disk, *outer* oval smaller, *inner* lanceolate, concave, of different sizes, shaded with rose-colour. *Corolla* spreading, campanulate, about six inches long and nearly of the same width: *petals* from twenty to twenty-five, crimson, attached to the neck of the calyx, *outer* lanceolate pointed, *inner* long-oval broader. *Stamens* very numerous: *filaments* slender, filiform, white shaded with rose-colour, declining, converging fasciclewise, as well as the petals attached to the neck of the calyx, under ones gradually longer than the upper and about the length of the petals: *anthers* small, oblong, fixed at the base to the point of the filament: *pollen* white, granular, grains globular. *Style* thickish, rose-coloured, declining, cylindrical, shorter than the undermost stamens: *stigmas* ten, white, slender, slightly spreading, disposed in contiguous pairs. *Germen* cylindrical, from one to two inches long, slightly furrowed, beset at the angles with small obtuse slightly raised scales, each of which is furnished with a small pencil of bristlelike spines.

The above description is a version from the excellent one in french by Professor Desfontaines.



BERBERIS sibirica.

Siberian Barberry.

HEXANDRIA MONOGYNIA.

Nat. ord. BERBERIDES. Jussieu gen. 286.

BERBERIS. Cal. 6-phyllus extus 3-bracteatus. Pet. 6 ungue intus 2-glanduloso, calycinis foliolis opposita. Stylus 0; stigma latum orbiculatum. Bacca parva, ovata aut rarius subsphericea, 1-locularis 2-3-sperma. Frutices; folia alterna, sæpe alternatim fasciculata, fasciculo squamis imbricatis basi cincto et subtus spinâ simplici aut partitâ plerumque stipato; flores è medio fasciculo spicati, aut rarius subcorymbosi solitarii ut in Magellanici Commers., pedicellis basi 1-bracteolatis. Stamina filamenta glandulis petalorum implicita elasticè solvantur. Juss. l. c.

B. sibirica, pedunculis unifloris solitariis, foliis obovatis ciliato-dentatis. Willd. arb. 35.

Berberis sibirica. Pallas itin. 2. append. 737. n. 108. tab. P. fig. 2. Ejusd. ross. 2. 41; (in textu). Murr. in commentat. goett. 6. (1784) 87. t. 6. Willd. sp. pl. 2. 229. Hort. Kew. ed. 2. 2. 314.

Berberis altaica. Pallas ross. 2. 41. t. 67; (in icone).

Fruticulus è fissuris rupium excelsarum procrescens, spithamæus v. pedalis, rarè major, nunquam sesquipedali altior, crassitie vix digiti minoris, rigidus, alternè ramosus, erectus, ligno citrino, cortice extus griseo striato, intus itidem flavissimo, sub singulo ramulo vel gemmâ spina (stipula spiniformis Murray.) palmato-ramosa, 5-fida, 4-fida v. 3-fida, in ramos divaricatos et striatos setaceos rigidos divisa. Folia è gemmis v. spinarum alis fasciculata, oblonga, dentibus setaceis distantibus ciliata. In plantis è semine educatis folia longè petiolata, suborbiculata, ciliata. Flores inter folia solitarii pedunculo nudo, cernui, subglobosi, majores quàm in BERBERIDE vulgari. Calyx exterior triphyllus, virescenti-flavus; interior corollâ major et latior, totidem foliolis coloratis. Cor. serpetala intensius flava. Baccæ cernuæ, majores et majus ovatæ quàm in BERBERIDE vulgari, stigmate fungiformi umbilicata, ruberrimæ, gratè acidæ, continentem semina 5 oblonga hinc compressa, grisea, gustu acerbo. Pallas ross. l. c.

A curious species of Barberry, known among the Mogol Tartars by the name of Schara-módon, or Yellow-Wood, and applied by them to the purposes of both superstition and medicine.

Native of the Altaic Mountains on the confines of China, of Dauria, and other districts of the Oriental portion of the Russian dominions. Said by the Chevalier Pallas to grow from the crevices of the highest rocks, and seldom to exceed a foot in height.

The drawing was taken from a sample which flowered in June last, at the nursery of Messrs. Malcolm and Co. at

Kensington, where it was preserved in a small garden-pot, in a pit.

Introduced by Sir Joseph Banks in 1790.

A stiff upright diminutive shrub, from nine inches to a foot and half high at most: *stem* scarcely of the thickness of the little finger; *branches* alternate; *wood* lemon-coloured; *bark* grey or ash-coloured, deep yellow on the inside. Each branch or bud is subtended by a palmately pronged *thorn* (*thorny stipule* according to Murray) with 3-4- or 5 divaricated streaked subulate stiff prongs. *Leaves* fascicled, from the axil of the thorns, obovately oblong, widely dentate, ciliate; in young seedling plants suborbicular, long-petioled, and ciliate. *Flowers* between the leaves, solitary, upon a naked peduncle, cernuous, larger than in the Common Barberry. *Outer calyx* (3 *bractes*) of three pieces greenish yellow; *inner* (*true calyx*) larger and broader than the corolla, consisting of as many leaflets as there are petals. *Corolla* of six deep yellow petals. *Berries* cernuous, larger and of a more ovate form than in the Common Barberry (*BERBERIS vulgaris*), surmounted by the permanent mushroom-shaped *stigma*, deep red, of a gratefully acid flavour: *seeds* five, oblong, flattened on one side, grey or ash-coloured, of a rough sour taste.



PASSIFLORA cærulea.

Common Passionflower.

MONADELPHIA PENTANDRIA.

*Nat. ord. PASSIFLOREÆ. Jussieu in ann. du musée. 6. 102.**PASSIFLORA. Suprà vol. 1. fol. 13.**Div. Foliis multifidis.*

P. cærulea, foliis palmatis quinquepartitis integerrimis, petiolis glandulosis, involucri triphylo integerrimo, filis coronæ corollæ brevioribus. *Willd. sp. pl.* 3. 623.

Passiflora cærulea. Linn. sp. pl. ed. 2. 2. 1360. Amœn. acad. 1. 231. fig. 20. Mill. dict. ed. 8. n. 2. Lamarck encyc. 3. 39. Cavan. diss. 10. 461. t. 295. Curtis's magaz. 28. Miss Lawrance's Passionfl. Willd. epun. 2. 698. Hort. Kew. ed. 2. 4. 154.

Granadilla pentaphyllos, flore cæruleo magno. *Duham. arb. 1. 272. tab. 107.*

Clematis quinquefolia americana s. *Flos Passionis. Rob. ic.*

We have availed ourselves for the present article of a drawing of this favourite flower, made some years ago by Mr. Sydenham Edwards, for an engraving intended to be distributed amongst his friends, it appearing to us the best representation of the subject to be found in any work of this nature.

Cærulea, the Brazilian species, though now the commonest of all exotic climbers in use for ornament, is of considerably later introduction than *incarnata*, the only other plant of the genus that will live with us in the open air; the earliest notice of the first in this country dating from about 1699, of the latter from as far back as 1629.

The plant by which the type of this curiously configured genus made its first appearance in the south of Europe, some few years before any one had reached our country, we are persuaded from the contemporary figures done in Italy, was that which forms the 152d article of this publication, and belongs to South America, whence it was brought to Naples by a Spanish Viceroy on his return from Peru. The one which first appeared in our gardens, on the other hand, we believe to have been the North American plant of the 332d article of this work. We shall not dispute the propriety of discriminating the two in the way they have been

by Mr. Sabine in the Horticultural Transactions, where the *incarnata* β of this work is denominated *PASSIFLORA edulis*.

Cærulea is a climbing shrub, extending itself (with support) to the height of twenty feet or more: *branches* dark green, cylindrical, smooth, slightly cornered at the upper part. *Leaves* alternate, pretty large, green, smooth, palmate, 5- sometimes 6- and even 7-lobed, lobes ovally oblong, quite entire and bluntish at the top: *petiole* smooth biglandular. *Tendrils* axillary, simple. *Stipules* semilunar, rounded at the outer edge and entire, setaceous mucronate downwards. *Peduncles* axillary, solitary, oneflowered. *Flowers* at least three inches in diameter, subtended by a threeleafletted involucre; *leaflets* oval, concave, entire, pale green. Segments of the *calyx* 5, oblong, mucronate, dark green on the outside, white on the inside. *Petals* white, oblong, of the same size as the calycine segments. *Crown* radiate, not so large as the corolla, blue towards the extremities of its rays, purplish at the base, white in the middle. *Fruit* ovate, about the size of an apricot or large plum, orange-yellow when ripe.

The shrub is covered with a succession of bloom from July till the autumnal frosts set in.

The above description is chiefly from the French of the excellent Encyclopédie of the Chevalier Lamarck.

There is a variety in our gardens with the lobes of the leaves greatly narrower than those of the present. It has been sometimes taken for another species.



Hort. del.

Pub. by E. Ridgway 170

Piccadilly, Oct. 1. 1820.

MARSDENIA suaveolens.

Sweet-scented Marsdenia.

PENTANDRIA DIGYNIA.

Nat. ord. ASCLEPIADEÆ. Brown in mem. wern. soc. 1. 19. et suprâ vol. 2. fol. 111. Div. I. ASCLEPIADEÆ VERÆ. Brown locc. citt.

MARSDENIA. *Cor. urceolata, 5-fida, nunc subrotata. Corona staminea 5-phylla, foliolis compressis indivisis, intûs simplicibus. Antheræ membranâ terminatæ. Masse Pollinis erectæ, basi affixæ. Folliculi læves. Semina comosa. Suffrutices, sæpius volubiles. Folia opposita, latiuscula, plana. Cymæ nunc thyrsi interpetiolares. Stigma sæpius muticum, quandò-que rostratum, rostro indiviso v. bifido. Brown in loc. cit. 28. et in prod. 460.*

OBS. PERGULARIÆ forsân nimis affinis, quæ diversa tantummodò foliolis coronæ stamineæ intûs lacinulâ auctis. *Brown l. c.*

Div. I. Stigma muticum. Marsdeniæ veræ.

M. suaveolens, caule suberecto, foliis ovali-lanceolatis glabris aveniis, tubo ventricosò, fauce barbata. *Brown in mem. wern. soc. 1. 30.*

Marsdenia suaveolens. Brown prod. 1. 461. Rudge in trans. linn. soc. 10. 299; tab. 21. fig. 1. Sweet hort. sub. lond. 51.

Rami supernè volubiles. Fol. firmula, oblongo-ovata, lanceolata, 2 uncias longa v. ultrâ latitudine ferè duplo minore, villosiuscula, obsoletius nervosa, costâ mediâ pallidâ à supino prominente: petioli pluriès breviores laminâ, teretes, villosi. Cymæ in ramis plurimæ, plurifloræ, parvæ, breviores foliis, villosæ, floribus ochroleucis, parvulis, odoris: pedunculus erectus, filiformis, cymâ longior; pedicelli villosi, longitudine ferè florum, basi bracteolis villosis pluriès brevioribus stipati. Cal. villosus, 5-fidus, campanulatus, pedicellorum concolor, duplo brevior corollâ v. magis, segmentis ovato-acuminatis. Cor. unicolor, urceolato-rotata, limbo triplo longiore tubo, transversè subbilineari, 5-partito, intûs barbato, lacinii oblongis acuminatis patentibus distantibus. Pistillum tubo corollæ æquale: stigma pallidum apiculo acuminato bifido.

The present is the only figure of this new addition to our greenhouses made from the living plant. The fragrance and long enduring succession of the blossom will cause the species to be highly prized. In general appearance, it reminds us of *CYNANCHUM pilosum*, already given in this work; in the flavour of the perfume, of the popular *HELIOTROPIUM peruvianum*.

Native of New Holland, where the species was first observed by Mr. Brown, who in instituting the genus, observes, that the group is perhaps scarcely distinct enough from that of *PERGULARIA*, which differs merely by the addi-

tion of a small segmentlike appendicle on the inside of each of the five pieces composing the stamíneous crown.

The drawing was taken from a sample which flowered this summer, for the first time, in the greenhouse at the nursery of Messrs. Colville, in the King's Road, Chelsea.

A partly standard and partly twining undershrub, not recorded in the Hortus Kewensis. *Leaves* opposite, oblongly ovate, lanceolate, two inches in length or more, with scarcely half that breadth, slightly villous, obsoletely nerved, with a pale prominent midrib: *petioles* several times shorter than the blade, cylindrical, villous. *Cymes* many along the branches, interpetiolar, several-flowered, small, shorter than the leaves, villous; *flowers* small, cream-coloured; *peduncle* upright, filiform, longer than the *cyme*, *pedicles* villous, about the length of the flower, furnished at the base with several times shorter villous *bractelets*. *Calyx* villous 5-cleft, campanulate, of the colour of the petioles, twice shorter than the corolla or more, segments ovately lanceolate. *Corolla* of one colour, urceolately rotate; *limb* 5-parted, twice longer than the tube, about two lines across; bearded on the inside, segments oblong taper-pointed spreading, standing apart. *Stamíneous crown* of five pieces, each piece compressed, undivided, without an appendage on the inside: *anthers* terminated by a membrane: *pollen-masses* upright, fixed at the base. *Pistil* equal to the tube of the corolla; *stigma* pale with a pointed bifid apex. *Follicles* (indehiscent seedvessels) smooth. *Seeds* comose (tufted).



KAULFUSSIA amelloides.

Cape-Asterflowered Kaulfussia.

SYNGENESIA POLYGAMIA SUPERFLUA.

Nat. ord. CORYMBIFERÆ. *Jussieu gen.* 177. *Div. II.* Recept. nudum. Sem. papposum. Flores radiati, in TUSSILAGINE et SENECTIONE partim flosculosi.

KAULFUSSIA. *Cal. communis* simplex, æqualis, foliolis (13) 14-16 lanceolatis obtusis membranaceo-marginatis costâ validâ herbaceâ obtusâ carinatis, applicatis. *Calathidium (corolla)* radiatum. *Flosculi radii* fæminei, copiosi (in nostrâ plantâ 7-8), contigui, ligulati, tubo filiformi (pubescente), limbo oblongo mox revoluti obtuso apice tricenato. *Germ.* compressum, cuneiforme, brevissimè pedicellatum, cum pedicello foveis receptaculi arcuè inhærens (pubescens) areâ apicali papillatâ. *Stylus* tubo vix longior: *stig.* 2-fidum: *pappus* nullus nisi fimbria pilorum brevissimorum. *Flosc. disci* hermaphr., tubuloso-infundibuliformes, plerique incurvi; tubo pubescente; limbo 5-fido patente. *Anthæ.* coordinatorum, connatæ (*polline* ochroleuco). *Germ.* ut in flosculis radii: *stylus* longitudine tubi antherarum: *stig.* 2-fidum, revolutum: *pappus* è setis rigidulis plumosis longitudine tubi flosculorum. *Recept.* (nudum) convexum, alveolatum. (*Sem.* fusca, obovato-oblonga v. cuneata, complanata, appressè pilosa, marginata margine crassâ concolori).

Differt SENICILLI Gærtn. sem. 2. 453. t. 173. f. 4. *pappi radialis defectû et discoidalis longitudine eximiâ.* Ab AGATHÆÆ Cassinii (*Bulletin de la soc. philom.* Nov. 1817. 183) *pappo difforni, qui in CINERARIâ amelloide genere illius typo, tam in radio quàm in disco setosus plumosus.* Nees von essenb. in hor. phys. berol. 53.

Kaulfussia amelloides. Nees von essenb. in hor. phys. berol. 33 et 53. tab. 11. *Curtis's magaz.* 2177.

Caulis à basi ramosissimus, circiter pedalis, ramis diffusis, tortuosis, teretibus, punctato-scabris pilisque rigidis patentibus hispidis. Fol. (2-3-uncialia) alterna, sessilia, patentia, lanceolato-spathulata, mucronulata, minutissimè remotè denticulata, carinata, utrinque hirta, rigidula. Flores terminales, longè pedunculati, cernui, specie et magnitudine florum CINERARIÆ amelloidis. Pedunculus (2-3-uncialis) teres, glandulis sessilibus pilisque patentibus inspersus, supernè nudus, infernè foliolis aliquot lanceolatis minoribus præditus. Cal. hirsutus. Radius cæruleus. Discus saturatè violaceus. Planta annua v. biennis. Id. loc. cit.

A genus lately instituted by M. Nees of Essenbach, in the work we have quoted, and called after Dr. Kaulfuss of Halle. The essential distinction from the immediate relatives, consists in the want of pappus (seedcrown) in the florets of the ray; while the florets of the disk are furnished with a sessile and feathered one. All will be struck with

the resemblance to the well-known Cape Aster (*CINERARIA amelloides*), lately separated by M. Cassini from *CINERARIA* by the title of *AGATHÆA cælestis*.

M. Nees appears to have some doubt whether our plant may not be the same as the *AGATHÆA macrophylla* of M. Cassini; but observes that the seed is described as smooth or bare in that, while in the present species it is furred; neither does he think it likely that the peculiar character belonging to the pappus (seedcrown) should have escaped so acute an observer as that botanist.

Native of the Cape of Good Hope. Lately introduced by Mr. Anderson, the superintendant of the physic garden at Chelsea; having been raised from the seed received from Mr. Otto, who has the charge of the botanic garden at Berlin.

Annual or biennial. *Stem* numerously branched from the very base, about a foot high; *branches* widespreading, crooked, round, shagreened, with a nap of stiff-spreading hairs. *Leaves* alternate, sessile, spreading, lanceolately spatulate, tipped by a small point, minutely and widely toothletted, keeled, with rough nap on both sides, stiffish. *Flowers* terminal, long-stalked, cernuous. *Peduncle* round, beset with small glandular points and spreading hairs, leafless above, furnished with a few smaller lanceolate leaves below. *Calyx* simple, rough-furred, even; *leaflets* (13) 14-16, lanceolate, obtuse, membranously edged, close-pressed, with a strong keeled herbaceous back. *Corolla* rayed: *florets* of the ray pistilbearing (bright blue), many and contiguous (in the flowers we examined 7-8, and scarcely contiguous), ligulate; *tube* filiform, furred, *limb* oblong, becoming revolute, about $\frac{1}{4}$ of an inch long, obtuse, triply notched at the end. *Germen* cuneiform (wedge-shaped) compressed, with an extremely short pedicle by which it is secured in the cavities of the receptacle, furred. *Style* hardly longer than the tube: *stigma* forked: *pappus* (seed-crown) none, except an exceedingly short villous fringe. *Florets of the disk* deep violet, bearing both anthers and stigma, tubularly funnelled, most of them inbowed; *tube* furred; *limb* 5-cleft spreading. *Anthers*, like those of the rest of the tribe, connate, dark; (*pollen* cream-coloured). *Germen* like that of the ray; *style* the length of the filaments; *stigma* forked, prongs revolute: *pappus* (seedcrown) of stiff-

feathered bristlelike hairs, the length of the tube of the floret. *Receptacle* naked, convex, alveolate (honeycombed). (*Seeds* brown, obovately oblong or cuneate, flat, close-pressedly furred, with a thick border of the same colour as the disk).

Requires the treatment of a tender annual; that is, to be sown in the spring on a hot-bed. The flowers of the ray roll themselves close up backwards towards evening, and spread again in the morning for several days in succession. The blue of the ray is bright and beautiful.

We have adopted the description given by the framer of the genus; which seems to disagree with our own observations only in the florets of the ray being termed "*copiosi et contigui*," while in our plant they were only 7-8, and scarcely to be called contiguous.

1



PHOTINIA arbutifolia.
Californian Hawthorn or Photinia.

ICOSANDRIA DIGYNIA.

Nat. ord. ROSACEÆ. Jussieu gen. 334. Div. I. Germen simplex, inferum, polystylum. Pomum calycino limbo umbilicatum, multiloculare. Arbores aut frutices. POMACEÆ.

PHOTINIA. *Cal. 5-dentatus. Petala reflexa. Ovarium (germen) semisuperum, villosum, biloculare. Styli duo, glabri. Pericarpium biloculare calyce carnosio inclusum. Testa cartilaginea.*

Arbores (Asia temperatæ et Californiæ). Folia simplicia, coriacea, sempervirentia, serrata v. integerrima. Paniculæ compositæ, corymbosæ, terminales. Fructus parvi, impubes. Lindley pomac. in trans. linn. soc. 12. 103.

P. arbutifolia, foliis oblongo-lanceolatis distantèr dentatis, pedicellis calyce brevioribus. Lindley pomac. in trans. linn. soc. 12. 103.

Cratægus arbutifolius. Hort. Kew. ed. 2. 3. 202.

Folia sexiès longiora petiolo, margine revoluta: panicula composita, non fastigiata.

A genus established by Mr. Lindley in his "Observations on the natural group of Plants called *Pomaceæ*" forming the first section of the order *Rosaceæ* in Jussieu's *Genera Plantarum*; a treatise about to appear in the forthcoming volume of the Transactions of the Linnean Society. We have only seen a part of it; whence we have extracted the above generic and specific characters.

PHOTINIA, as far as yet known, includes three certain and one doubtful species, natives of California and the temperate regions of Asia, all hitherto ranking in the genus **CRATÆGUS**. The limits are technically defined by "a five-toothed calyx: reflex *petals*: a semisuperior villous two-celled *germen*: two smooth *styles*: a two-celled *seed-vessel* enclosed in a fleshy calyx: and a cartilaginous *seedcoat*." The congeners are all arborescent, with a simple coriaceous evergreen, sometimes serrate, sometimes entire-edged foliage, compound corymbose panicles, and a small smooth-rinded fruit.

Arbutifolia is from California, whence it was introduced by Mr. Archibald Menzies in 1796. It forms a handsome greenhouse-plant; flowers about August, and is distin-

guished from the others of the genus " by oblongly lanceolate widely toothed revolutely edged leaves, by panicles which are not level-topped as in the others, and by pedicles shorter than the calyx."

The drawing was taken at the nursery of Messrs. Malcolm and Co., Kensington, where this scarce plant is very successfully treated.

The *MESPILUS japonica* of the 365th article of this work, ranks according to Mr. Lindley's treatise in his genus *ERIOBORRYA*, of which the character will be fully given in the appendix to the present volume of the Register. At one point it comes next to *PHOTINIA*.

Not having had the opportunity of seeing the plant of the present article in flower, we shall not attempt any further description.



QUISQUALIS indica.

Amboyna Quisqualis.

DECANDRIA MONOGYNIA.

Nat. ord. THYMELÆ. Jussieu gen. 76.

COMBRETACEÆ. Brown in append. to Flind. voy. 2. 548; et suprà fol. 429.

QUISQUALIS. Cal. longissimus filiformis limbo 5-dentato. *Squama* (petala) 5 oblongæ. *Stylus* filiformis: *stigma* obtusum. *Drupa* 5-angularis 1-sperma. *Folia* opposita, *flores* spicati, *terminales* aut *axillares*, *singuli* bracteati. Jussieu l. c. 78.

Q. indica, bracteis oblongis ventricosis: petalis oblongis villosissimis. *Roxburgh flor. ind. ined.*

Quisqualis indica. Linn. *sp. pl. ed. 2.* 1. 556. Willd. *sp. pl.* 2. 579. *Lamarck illustr. t.* 357. *Smith in Rees's cyclop. in loc.* *Sweet hort. sub. lond.* 94. *Curtis's magaz.* 2033.

Quisqualis pubescens. *Burm. ind.* 103. t. 35.

Quis qualis. *Rumph. amboyn.* 5. 71. t. 38.

Frutex robustus scandens, ramis novellis villosissimis. Fol. subopposita, breviter petiolata, à lato-ovalibus ad oblongo-cordata, integra, villosa, acumine abrupto longiusculo. Stipulæ nullæ. Spicæ terminales et axillares, villosæ. Flores plurimi, oppositi et alterni. Bractææ solitariae, unifloræ, rhomboideæ, villosæ, ciliatæ. Cal. tubo filiformi, proximè infra orificium villosorum 5-fidum dilatens. Petala quinque, oblongo-lanceolata, ore calycis inserta, villosissima. Filamenta ordine alternè duplo ori calycis circumposita: antheræ oblongæ, incumbentes. Germen inferum, uniloculare, oblongum; ovula sæpius 4, summo loculo annexa. Stylus usque ad stamina cum tubo calycis coadunatus, inde discretus atque in stigma majusculum triquetrum perforatum antheris æquale abeuns. Roxb. in loc. cit. (ex anglico versum).

In the unpublished "Flora Indica" two species of *QUISQUALIS* are recorded by Dr. Roxburgh as cultivated in the Calcutta Garden; both of a pubescent habit. The one with narrow bractes has been named *villosa* by the Doctor, and is said to be native of Pegu; the other, the present species, with broad bractes, of Amboyna. Loureiro's *indica*, of which we find a prototype specimen in the Banksian Herbarium, is entirely smooth throughout, and we should think distinct from both the above.

We transcribe the following account of the subject of this article from Dr. Roxburgh's manuscript.

“ A large climbing *shrub* with the young shoots very downy. *Leaves* subopposite, short-petioled, from round-oval to oblong-cordate, entire, villous, their points triangular and acute. *Stipules* none. *Spikes* terminal and axillary, villous. *Flowers* many, opposite, and alternate. *Bractes* solitary, one-flowered, rhomboidal, villous, ciliate. *Calyx*: *tube* filiform, widening just below the 5-cleft hairy mouth. *Petals* 5, oblong-lanceolar, inserted on the mouth of the tube of the calyx, very hairy. *Filaments* short, in two alternate rows round the mouth of the tube of the calyx: *anthers* oblong, incumbent. *Germen* inferior, oblong; *ovula* generally 4 attached to the top of the cell: *style* united with the tube of the calyx until it reaches the stamens, where it parts, ending in a large 3-sided *stigma* even with the anthers.”

The drawing was taken from a plant which flowered last year in the hothouse, at the nursery of Messrs. Whitley and Co. King's Road, Fulham; where the species was first introduced from the Calcutta Garden.

The corolla varies from white to rose-colour, and even blood red in different stages of the same flower. The fruit is about the size of a filbert and five-cornered. When quite ripe the kernel is said by Rumphius to be eatable. Though the plant is mentioned by Dr. Roxburgh as an aboriginal of Amboyna, other accounts speak of it as only naturalized there, having been derived from Java and the Molucca Islands.

The generic name was combined by Rumphius from *quis* and *qualis*, and intended, as Sir James Smith has it in Rees's Cyclopaedia, “ to express the singular variability of the plant, as if nothing could be found like it.”



J. Walp. del.

Drawn by J. Walp. del. 1820.

J. Walp. del.

MESEMBRYANTHEMUM elongatum. β .*Dwarf tuberous Fig-Marygold.*

ICOSANDRIA PENTAGYNIA.

Nat. ord. FICOIDEÆ. Jussieu gen. 315. Div. II. Germen inferum.
 MESEMBRYANTHEMUM. Suprà vol. 3. fol. 260.

Div. IV. Capitata. Foliis dense alternèque imbricato-capitatis longissimis, impunctatis; caudice præ foliorum pondere decumbente, petalis angustissimis deorsum plus minus ciliatis; stylis numerosis, germinibus depressis. Haworth MSS.

M. elongatum, foliis subspithamæis obtusè triquetris semiteretibusve, canaliculatis, glauciusculis, radice tuberosà carnosà. Haworth MSS.

Mesembryanthemum elongatum. Haworth mesembr. 236. Ejusd. misc. nat. 40. et synops. pl. succ. 228. Hort. Kew. ed. 2. 3. 223.

(α) corolla 5-unciali, odore hircino, petalis subcapillaceis pube longà flexuosà ciliatis. Haw. MSS.

(β) corolla 4-unciali, odore subhircino, petalis exterioribus deorsum pilis rectis brevibus paucissimis nudo oculo vix manifestis ciliatis. Haw. MSS.

Radix deformis, crassa, sublobata, magnitudine ferè ovi anatini: (è sicco à var. α . in tabulà delineata). Caudex simplicissimus, debilis, flexuosus, erecto-procumbens, simul cum pedunculo terminali dodrantalis v. ultrà, viridilutescens, deorsum foliorum vestigiis subarticulato-circinatus. Folia terminalia, ante florescentiam in fasciculum laxiùs congregata, dodrantalia, sæpiùs semiteretia, suprà plùs minùs canaliculato-concava, superiora sensim minora semipedalia aliquantulumque distantiora: omnia erecto-patentia, de-flexo-emarcescentia, neque decidua. Pedunculus terminalis, teres æqualibilib, debilis, 4-uncialis, purpurascens, basi bracteis 3 foliiformibus verticillato-stipatus. Cal. subhemisphæricus segmentis 5 subæqualibus, semiteretibus, subuncialibus, deorsum latescentibus, 2 simplicibus, 2 basi membranà diaphanà utrinque auctis, quinto altero tantum latere membranoso. Pet. lutea, nitidissima, numerosissima, multiserialia, calycem longè superantia, sudo cælo post meridiem expandentia, lineari-acuminata, interiora gradatim decrescentia subconniventia, intima formà ferè filamentorum è quibus pauca antherà incompletà terminata. Stamina vera numerosissima, incurvo-conniventia, filamentis tenuissimis, antheris exiguis, polline stramineo-pallido. Styli duodenis plures, saturatè flavescentes tortuoso-congesti. Germen suprà planum, pellucido-virescens, radiato-striatum (radii loculos capsulæ futuræ denotantes). Haworth MSS. (phraseologià aliquantulum mutata).

We have to thank Mr. Haworth for the above description of this rare plant, which he considers a variety of *elongatum*, a species seldom known to blossom with us. The sample was communicated to him from Kew Gardens, where it had been raised in 1819, from seed from the Cape of Good Hope. It flowered this summer, and bids

fair to perfect the fruit, but the parent plant, having produced no lateral shoots or suckers (the means by which the species of this section of the genus survive from year to year), will most probably perish.

We are glad to find that Mr. Haworth perseveres with zeal in the study of this race of vegetables, and to hear that he has collected as many as 200 species of the present genus, besides obtaining competent information of nearly 100 more.

Root tuberous, nearly the size of a duck's egg. That shown in our drawing belonged to a dried sample of variety (α .) *Stem* quite simple, weak, flexuose, procumbent, about 9 inches long or more with the terminal peduncle, greenish yellow, ringed by the scars of the fallen foliage, and looking as if jointed. *Leaves* loosishly congregated at the end of the stem, about 9 inches long, mostly semicylindrical, more or less concavely channelled, upper ones gradually smaller (about 6 inches long) and rather farther apart; all uprightly spreading, reflexed as they wither away, but do not fall off at the base. *Peduncle* terminal, round, of one thickness throughout, weak, 4 inches long, tinged with purple, furnished at the base with 3 verticillately disposed *bractes*. *Calyx* hemispherical, segments 5, nearly equal, semicylindrical, about an inch long, widening downwards, 2 simple, 2 membranously winged on both sides, the fifth only on one side. *Flowers* yellow, expanding after mid-day, but only when the sun shines: *petals* bright, very numerous, in many rows, reaching far beyond the calyx, linearly taper-pointed; *inner ones* becoming gradually less; *innermost* (abortive stamens) with the form of the filaments, now and then bearing an imperfect anther. *Perfect stamens* very numerous, incurvedly connivent; *filaments* very slender; *anthers* very small; *pollen* pale straw-coloured. *Styles* more than 12, deep yellow, twistedly crowded. *Germen* flat-topped, of a pellucid green, radiately streakletted (the streaks denoting the number and place of the cells of the future capsule).



Cyc. Howardi det.

Pub. by F. Steudinger 17. *Brachidictyon* Nov. 1. 1820.

J. M. Hall.

MESEMBRYANTHEMUM capitatum.

Short dagger-leaved Fig-Marygold.

ICOSANDRIA PENTAGYNIA.

Nat. ord. FICOIDEÆ. Jussieu gen. 315. Div. II. Germen inferum.
 MESEMBRYANTHEMUM. Suprà vol. 3. fol. 260.

Div. IV. Capitata. Foliis densè alternèque imbricato-capitatis longissimis, absque punctis aut papulis; caudice præ foliorum pondere decumbente, petalis angustissimis deorsum plus minus ciliatis; stylis numerosis, germi-nibus depressis. Haworth MSS.

M. capitatum, foliis æquilateri-triquetris glaucescentibus, membranis calycinis pallidis, petalis luteis longitudine calycis, exterioribus purpurascentibus, stylis strictis setaceis. Haworth misc. nat. 41.

Mesembryanthemum capitatum. Hort. Kew. ed. 2. 3. 223. Haw. mesembr. 390. n. 227; et ejusd. synops. pl. succ. 228. n. 58.

Mesembryanthemum pugioniforme. Lin. sp. pl. ed. 2. 1. 699. Mill. dict. ed. 8. n. 46. Willd. sp. pl. 2. 1050. Ejusd. enum. 1. 538.

Ficoides capensis caryophylli folio, flore aureo specioso. Bradl. succ. 2. 5. t. 14.

Astero aizoides del Capo di Buona Speranza. Zanon. ist. bot. 35. t. 13.

Suffrutex stolonibus perennans radice fibrosâ, caudice simplici, seniori pedali v. ultrâ, procumbente. Folia summo caudice congregata, interiora erecta, exteriora patentia sesuncialia, subulata, equilateri-triquetra, glauciuscula efflorescentiâ papillosâ nullâ, ad angulos plus minus canaliculata. Rami infra folia provenientes, subverticillati foliosi elongati procumbentes. Pedunculi ramorum continui, subpaniculati, quadriunciales, obsoletè angulosi, asperiusculi. Folia ramea breviora, sæpè remota, terna vel spursa, bracteacea. Cal. amplius, 5-angularis, 5-fidus, segmentis subæqualibus, è basi rotundiusculâ caudato-attenuatis, interioribus ut sæpiùs membranâ latâ instructis. Cor. ampla diametro triunciali: petala ordine multiplici numerosa, infra medium subciliata; exteriora linearia acuta purpurascentia, media lineari-lanceolata lucido-lutea, intima capillaria conniventia. Filamenta numerosa, à stylis distantia; anthe. luteæ, polline luteo. Germ. hemisphæricum, depressius quam in speciebus affinibus; styli 16, à filamentis distantes, breves, erecti, setacei, lutescentes. Haw. misc. 41; (phraseologiâ plurimis mutata.)

Cultivated here in 1717. Came originally from the Cape of Good Hope. Lasts sometimes from eight to nine years in a warm greenhouse.

The prior name of *pugioniforme* has been transferred by Mr. Haworth from this to the plant constituting the 72d article of the "Plantæ Grasses;" differing from *capitatum* in being scarcely more than biennial, in being larger,

and in having a longer and more glaucous foliage, although the flowers are not larger than here.

We submit our opinion entirely to Mr. Haworth in regard to the above synonymy, or else we should not have hesitated to adopt the figure in the "*Hortus Elthamensis*" (*tab.* 210), usually adduced to this plant.

The drawing was taken two years ago at the nursery of Messrs. Whitley and Co. King's Road, Fulham.

Elongatum, *capitatum*, and *pugioniforme* are extremely near akin, and with two others already known, constitute so distinct a group in Mr. Haworth's view, that they are probably destined to be embodied under a new generic name in some future production of the pen of that indefatigable observer of succulent plants. As the species do not in this section always produce suckers or shoots, the mode by which these plants survive, our chief reliance for their continuation is upon seed; which they produce freely, when placed out of doors from May to September.

Stem about a foot or rather more in length, procumbent owing to the weight of the foliage. *Leaves* collected at the summit of the stem, longest about six inches in length, subulate, equilaterally triangular, inclining to glaucous, without any papillary efflorescence; *branches* procumbent. *Peduncles* on the branches, forming a kind of panicle, about four inches long, slightly roughened. *Flowers* yellow, expanding in the forenoon. *Calyx* large; segments nearly equal, caudately tapered. *Corolla* 3 inches over; *petals* numerous in many rows, very narrow, ciliated below the middle. *Filaments* numerous, innermost (abortive stamens) capillary, connivent, standing wide of the styles. *Germen* hemispherical, more depressed than in the other immediately allied species. *Styles* 16, insulated from the stamens, short, setaceous, upright, yellow.



Ipomoea H. Benth.

Ipomoea L. f. *Ipomoea* 170 *Ipomoea* L. f. 1. 1820.

Ipomoea H. Benth.

THUNBERGIA grandiflora.

Blue-flowered Thunbergia.

DIDYNAMIA ANGIOSPERMIA.

Nat. ord. ACANTHI. Jussieu gen. 102. Div. I. Stam. 4 didynama.

ACANTHACEÆ. Brown prod. 1. 472.

THUNBERGIA. Cal. duplex, exterior 2-phyllus, interior 12-partitus, brevior, laciniis subulatis. Cor. campanulata, tubo ampliato, limbo 5-lobo æquali. Stigma bilobum. Caps. globosa rostrata loculis dispermis. *Herbæ BARLERIÆ affines, caule 4-gono: flores solitarii, axillares.* Juss. loc. cit. 103.

T. grandiflora, perennis, scandens; foliis anguloso-cordatis; corollâ campanulatâ; calyce interiore nullo; antheris barbatis, calcaratis. *Roxburgh flor. ind. ined.*

Thunbergia grandiflora. Carey hort. beng. in loco.

Radix perennis, subterrosa: caules frutescentes, volubiles, exselsè scandentes; rami novelli villosiusculi, subquadrialati. Fol. opposita, petiolata, cordata, sæpè angulari-lobata, acuminata, 5-7-nervia, utrinque pilis minutis rigidis albis hispidiuscula, 3-8 uncias longa latitudine ferè pari; floralia racemorum parvula, cæterum similia: petioli erecti, longitudine ferè folii, propè basin tumidi, canaliculati, scabri. Stipulæ 0. Pedunculi axillares, solitarii, vel in racemis terminalibus pendulis gemini v. brachiatim gemini v. trini v. bis geminati: axillarum ut pedicelli uniflori, teretes, subclavati, petiolum æquantes. Flores ampli diametro subquadriunciali, colore cæruleo pulcherrimè nitentes. Bractæ 0. Cal. Spatha bivalvis; valvæ oblongæ, obliquatæ à latere inferiore curviores discretæ, à superiore rectiores partim coherentes interdum omnino, sæpiùs tantummodò juxta apicem, striatæ, acuminatæ, villosiusculæ, nigro-punctulatæ, tubum cum simul fauce subæquantes. Cor. 1-petala, campanulata, disco annulari glanduloso insidens: tubus brevis, conicus, faux ampla latere superiore elongatim fornicata, inferiore palato convexo grandiore lineis cæruleis saturatioribus dilutioribusque alternis picto intùs prominens: limbus 5-partitus, laciniis subrotundis, 2 superioribus erectis, inferioribus porrecto-patentibus: discus hypogynus annularis, carnosus, lobatus germinis basin cingens. Stam. fauce inclusa; fil. 4, ore tubi inserta, oblongo-ovata, compressa, rugosa, par anticum postico longius, sed ob curvaturam majorem non altius: anth. conniventes, æquales, lineares, erectæ, biloculares marginibus barbatis, anteriorum loculi utrinque calcari rigido acuto albo aucti, posteriorum tantummodò loculus exterior. Germ. conicum, subtetragonum: stylus longitudine staminum: stigma majusculum, foramine pertusum. Caps. globosa, rostrata, bilocularis, bivalvis, ab apice dehiscens: semina demum tantum duo in singulo loculo, subrotunda, compressa, margine incisa, latere extimo convexa tuberculata, intimo concava lævia.—Roxb. loc. cit. (ex anglico versum).

The drawing of this newly introduced handsome-flowered climber is from the pencil of Mr. Herbert, whose kind communications we have so often had to acknowledge. It

flowered in his hothouse at Spofforth the summer before last for the first time we believe in this country.

The following account of the species is taken from the manuscripts of Dr. Roxburgh:

“ Found among bushes, &c. in wild uncultivated spots near Calcutta; where it flowers in the rainy season.”

“ *Root* perennial, subtuberous. *Stems* woody, winding themselves up high trees, &c.; young shoots a little hairy and slightly 4-winged. *Leaves* opposite, petioled, spreading, cordate, often angularly lobed, pointed, 5-7-nerved; slightly roughened on both sides by small rigid white hairs, 4-8 inches long by nearly the same breadth: *floral ones* like the rest, but small: *petioles* upright, nearly as long as the leaves, swelled near the base, channelled, rough: *stipules* 0. *Peduncles* axillary, solitary or in pairs or threes or double pairs on terminal racemes, which, when unsupported, hang in handsome festoons. *Peduncles* of the axillary flowers and *pedicles* of the racemes, cylindrical, subclavate, the length of the petioles, oneflowered. *Flowers* very large, about 4 inches broad when expanded; of a most beautiful bright blue colour. *Bractes* 0. *Calyx*: *spathe* bivalved, about as long as the tube and faux of the corolla; *valves* obliquely oblong, rounder and detached at the *under edge*, at the *upper* almost straight and slightly cohering, sometimes for the whole length, though in general only near the summit, streaked, pointed, a little hairy and marked with small black dots. *Corolla* of one piece, campanulate, placed on a large lobate annular disk which surrounds the germen: *tube* short and conical, *faux* large with a long vaulted cavity on the *upper side*, in which the stamens and style are contained, on the *under* with a larger corresponding palate elegantly marked with light and dark blue streaks; *limb* 5-parted, *segments* nearly round, 2 *upper* erect, 3 *lower* spreading. *Stamens* within the faux: *filaments* 4, inserted at the orifice of the tube, *anterior pair* much curved, and although longer than the other pair, yet from the curve in the filaments their anthers are only even with the *posterior pair*, oblongly ovate, compressed, wrinkled: *anthers* converging, equal, linear, upright, bilocular, with bearded edges to the cells as in ACANTHUS; both cells of the *anterior ones* are furnished with a curved sharp rigid white spur; of the *posterior ones* only the outer cell. *Germen* conical, subqua-

drangular: *style* straight, the length of the stamens; *stigma* large, with an uncommon perforation, which I can only compare to an inverted crescent, with an handle affixed to the centre of its concave arc. *Capsule* globular, beaked, 2-celled, 2-valved, opening downwards from the summit: *seeds* when all come to maturity two in each cell roundish compressed, with a notched edge; tubercled and convex on the outside, concave and smooth on the inner."—*Roxburgh MSS.*



Hand del.

Drawn by J. Douglas 17th Decr. 1820.

J. Walter sc.

RUBUS parvifolius.

Crimson-flowered Chinese Bramble.

ICOSANDRIA POLYGYNIA.

Nat. ord. ROSACEÆ. Jussieu gen. 334. Div. IV. Germina plura indefinita verè supera, receptaculo communi imposita, singula monostyla. Semina totidem nuda aut rariùs baccata. Herbæ aut rariùs frutices. POTENTILLÆ.

RUBUS. Suprà fol. 461.

Div. Frutescentes.

R. parvifolius, foliis ternatis (quinatisque) subtùs tomentosis, caule (pedunculis) petiolisque aculeis recurvis. *Lin. sp. pl. ed. 2. 1. 707; (excl. syn. Rumph.)*

Rubus parvifolius. Willd. *sp. pl. 2. 1083. Smith in Rees's cyclop. in loc. n. 21; (non tamen quoad plantam Nepalensem D. Buchanani ibi pro eùdem habitam).*

Rubus triphyllus. Thunb. *jap. 215. Willd. sp. pl. 2. 1082. Smith in Rees's cyclop. in loc. n. 13.*

Suffrutex humilis ramosissimus; rami aculeati erecti flexuosi teretes viloso-canescens, aculeis rubidis recurvis sparsis distantibus. Fol. petiolato-ternata v. sæpè quinata, suprà glabra, infrà tomentoso-candicantia, foliola semuncialia ad uncialia obovato-rotunda inciso-dentata infernè cuneata atque integra nervo medio subtùs roseo-aculeolato, lateralia sessilia v. brevissimè stipitata, superiora 2 (in quinatis) cuneato-angusta, terminale in ternatis majus trilobo-incisum, in quinatis (ubi lobi in foliolis totidem discedunt) lateralia 2 inferiora solummodò æquans; petiolus communis sub2uncialis aculeatus: stipulæ binæ lineares erectæ pilosæ, inferiores sæpiùs simplices, superiores et florales sæpiùs bi-trifidæ. Flores inodori, rosco-purpurei, terminales, laxiùs paniculati, fastigiantes, erecti, $\frac{1}{2}$ uncia transversi v. circitèr; pedunculi 1-3-flori, inferiores foliis superiores stipulis subfoliaceis axillares: bractæ instar stipularum. Cal. rotato-revolutus extùs tomentosus aculeolis muricatus viridi-canescens, intùs sericeus roseo-candicans, persistens, segmentis ovato-acuminatis mucrone carnosulo viridissimo apiculatis. Pet. 5, caduca, rosea, calyci genitalibusque æqualia, erectissima, subcontigua, spathulato-rotunda, laminà obovato-rotundà crenulato-erosà staminibus appressà, ungue angusto concolori brevior. Stam. numerosa erecta pistilla arcè stipantia; fil. alba; anthæ. fuscæ, polline ochroleuco. Pistilla numerosa erecta coarctata; styli sanguinei, glabri; germina virentia hirsuta.

A small bushy bramble from China; remarkable for the upright petals of the crimson flower and the comparative smallness of the foliage. Lately introduced by the Horticultural Society, at whose garden the present drawing was taken in August. On the native samples in the Banksian and Lambertian Herbariums, the leaves seem to be mostly ternate, on our's many were quinate, the upper ter-

minal leaflet frequently dividing (owing probably to luxuriance induced by artificial culture) at the lobes so as to give off a second lateral pair; but in this case the terminal leaflet is always proportionately smaller than in the more usual ternate ones, and the upper leaflets smaller than the lower. The fruit we have not seen.

A low suffrutescent upright numerous branched plant: *branches* ascending, round, flexuose, grey-furred, with scattered wideset recurved reddish prickles. *Leaves* petiolate, ternate-quinate, smooth and green at the upper side, tomentose and white at the under; *leaflets* from half an inch to an inch in length, obovately round, jagged and dentate, at the lowermost part cuneate and entire, midrib prickly underneath, *lateral ones* sessile or very shortly stalked, the upper pair (in the quinate leaves) cuneately oblong and narrower; *terminal* one much larger than the lateral pair in the ternate leaves, but only equal to the lower lateral pair in the quinate ones, where the two lobes have parted into a separate upper pair: *common petiole* $1\frac{1}{2}$ -2 inches long; prickly and furred: *stipules* 2, upright, linear, furred, lower ones generally simple, upper and floral ones generally 2-3-cleft. *Flowers* without scent, crimson, terminal, loosely and levelly paniced, upright, about $\frac{1}{4}$ of an inch in diameter; *peduncles* or *branchlets* 1-3-flowered, lower ones axillary in full-grown leaves, upper in stipulaceous leaflets: *bractes* like the stipules. *Calyx* rotate, revolute, tomentose prickly greenish grey on the outside, on the inside silkily furred and white tinged with rose-colour, permanent; segments ovate taper-pointed tipped with a rather fleshy deep-green point. *Petals* 5, deciduous, even with the calyx and stamens, quite upright, subcontiguous, spatulately round, *lamina* obovately round, crenulately eroded, pressed against the stamens; *unguis* narrow shorter of the same colour. *Stamens* numerous upright surrounding the pistils closely; *filaments* white; *anthers* brown; *pollen* cream-coloured. *Pistils* numerous upright crowded; *styles* dark crimson, smooth; *germens* green hirsute.



AMARYLLIS laticoma.

Prince Leopold's Amaryllis.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. Jussieu gen. 54. Div. II. Germen inferum.

AMARYLLIDÆ. Brown prod. 1. 296. Sect. I.

AMARYLLIS. Suprà vol. 3. fol. 226.

Div. VI. Corollæ hexapetalo-partitæ, subrotatæ. Folia bifaria. Nobis in Journ. arts and scienc. 2. 362.

A. laticoma, foliis lineari-loratis, scapo plano scabro, pedunculis strictis robustis triquetris hispidis divaricatis duplo longioribus flore.

Bulbus ovato-oblongus, magnitudine ovi anatini v. circitèr, tegminibus fibroso-membranaceis multiplicibus fusciscentibus. Folia bifaria, recumbentia, subsena, lorata, lenta, longiora scapo latitudine $\frac{2}{3}$ uncia v. circitèr margine alternè sinistrorsum et dextrorsum subfalcatim flexa, obtusa, utrinque lucida. Scapus viridissimus, complanatus, subduncialis latitudine subsemunciali v. magis, tuberculato-scaber, erectus. Umbella multi- (17)-flora, ordine triplo alterna, remota, divaricata, hemisphærica, ramentis bracteaceis: spatha bivalvis, sphacelata, subrosea, ter brevior pedunculis, valvis lanceolatis refractis: pedunc. stricti, robustissimi, triquetri, pube brevi glandulosa hispida cinerascens, 4-unciales. Cor. nutans, roseo-alba, inodora, sexpartita, irregularis, turbinato-rotata: laciniis omnibus collateralibus ascendentibus v. nunc unâ remotâ genitalibus subtensâ, subæqualibus angustius ligulatis albis cum lineâ rosâ medio-longitudinali, infernè versùs convolutis anguiculatis, conniventibus, brevissimè connexis, supernè recurvis, non undulatis, 2 lineas latis v. circitèr, acutis. Stam. declinato-assurgentia, corollæ æqualia, alternè longiora, 3 præciora: fil. rosea fundo brevissimè tubuloso corollæ adnata: anth. oblongæ, vibratiles, atropurpureæ, polline ochroleuco. Germ. oblato-rotundum, rubido-virescens, subtrilobum; loculi pleni, biseriato-subpentaspermi, ovula globosa; stylus albus, stamina subexsuperans: stig. patens, pruinosa, 3-fidum lobulis rotundatis.

An unrecorded and singular species, by which the transition from AMARYLLIS to BRUNSVIGIA is rendered still narrower than by AMARYLLIS flexuosa of the 172d article of this publication, which we once deemed the probable connecting link of the two genera at one point. Laticoma has the fructification of AMARYLLIS and the herb of BRUNSVIGIA. The rough flat stem and proportionately massive three-cornered peduncles are anomalies in the genus. The leaves are not blistered nor the segments of the corolla undulate as in flexuosa.

The bulb came from the Cape of Good Hope, and flowered, most probably for the first time in Europe, in the collection of H. R. H. Prince Leopold of Saxe-Cobourg, at

Claremont, in August last, when we were favoured with the sample for the drawing.

In proportion to the stem the inflorescence is of singular breadth in this species.

Bulb ovately oblong, integuments light brown, numerous, fibrously membranous. *Leaves* bifarious, recumbent, (six?) lorate, pliant, longer than the scape ($1\frac{1}{2}$ feet long by about $\frac{3}{4}$ of an inch broad), edgewisely falcate alternately to the right and left, blunt-ended, shining on both sides. *Scape* very green, flat, about 9 inches high by about half an inch across or rather more, papillarily roughened, upright. *Umbel* many-(17)-flowered, alternate and 3-ranked, wide apart, outspread, hemispherical: *spathe* with 2 sphacelate faintly red lanceolate reflexed valves 3 times shorter than the peduncles: *peduncles* straight, unusually massive for the size of the flowers, 3-cornered, about twice the length of the corolla, greyish with a short glandular hispid pubescence. *Corolla* nodding, whitish pink, sixparted, irregular, turbinate rotate, about 2 inches long; *segments* either all converging upwards edgewisely or only one detached from the rest and subtending the stameneous fascicle, nearly equal, narrowishly ligulate, white with a deep rose-red line along the middle, downwards convolutedly narrowed and connivent, very shortly connected at the base, upwards recurved, about 2 lines broad or rather more, pointed. *Stamens* declined and assurgent, even with the corolla, alternately longer, 3 shedding the pollen earlier than the others; *filaments* pinkish, adnate to the short tubular contraction of the disk of the corolla: *anthers* oblong, balancing, dark purple, with a cream-coloured pollen. *Germen* oblately round, reddish green, slightly 3-lobed; *cells* closely filled by about 5 globular *ovula* in two rows: *style* white, rather overtopping the stamens: *stigma* open, frosted, slightly trifid, lobules rounded.



H. Kunt. det.

Botany & Geography of the Pacific Nov. 1. 1820.

S. Kunt. det.

CONVOLVULUS elongatus.

Broussonet's trailing Bindweed.

PENTANDRIA MONOGYNIA.

Nat. ord. CONVULVULI. Jussieu gen. 132. Div. I.

CONVOLVULACEÆ. Brown prod. 1. 481. Sect. I.

CONVOLVULUS. Suprà vol. 2. fol. 133.

Div. Caule prostrato s. non volubili.

C. elongatus, foliis cordato-ovatis cuspidatis, pedunculis bifloris folio longioribus, bracteis lineari-subulatis pedunculo partiali brevioribus, calycibus subciliatis. Willd. enum. 1. 205.

Convolvulus pseudo-siculus. Broussonet MSS. (fide Willdenovii in loc. cit.)

Annus. Caules teretes elongati prostrati, nunc supernè subvolubiles, tomentoso-villosi, virides. Fol. alterna, distantia, cordata, acuminata, tenuia, lætè virentia, sesquiuncialia latitudine unciali v. circitèr, suprà atomis albis crebris conspersa, subtus villosiuscula: petiolus teres multoties brevior laminâ. Pedunculi axillares, solitarii, filiformes, tomentoso-villosi, longiores folio, 1-2-flori: pedicelli calyci subæquilongi, crassiores, singuli bracteis binis lanceolato-linearibus herbaceis erectis oppositis ad basin. Flores pro genere parvi, albi: cal. infundibuliformis viridis; foliola æquilonga, obovato-oblonga, acuminata, supernè ciliata, 2 interiora angustiora. Cor. subrotata, profundiùs quinqueloba, lobis rotundatis, subtus villosiusculis. Stamina plurimùm breviora corollâ: fil. basi latiora, imo corollæ disco subtubuloso-contracto atque lutescente adnata, glabra. Stylus albus, erectus, 2-3plo brevior stigmatibus binis filiformibus, robustis, erectis, albidis. Germ. pallidum, subrotundum. Caps. globosa, Piso mediocri minor, glabra; semina 3, subrotunda, scabra.

Supposed to be native of the Canary Islands. Originally observed by M. Broussonet. First published by Willdenow under the present name in his "Enumeratio." Introduced by Messrs. Colville, at whose nursery in the King's Road, Chelsea, the present drawing was taken in July last.

A hardy annual. *Stems* round, long, trailing, sometimes twining at the upper part, tomentosely villous, green. *Leaves* alternate, wide asunder, cordate, taper-pointed, thin, lively green, about an inch and half in length and an inch across or thereabouts, beset with white atomous dots and bare on the upper side, slightly furred on the under: *petiole* round, many times shorter than the leaf. *Peduncles* axillary, solitary, filiform, tomentosely villous, longer than the leaf, 1-2-flowered: *pedicles* about the length of the

calyx, thicker, each with two lanceolately linear herbaceous upright opposite *bractes* at the base. *Flowers* small for the genus, white: *calyx* funnelform, green; *leaflets* of one length, obovately oblong, taper-pointed, fringed at the upper part, two inner ones narrower than the rest. *Corolla* subrotate, rather deeply 5-lobed, lobes rounded, slightly furred on the outside. *Stamens* considerably shorter than the corolla: *filaments* widest at the base, adhering to the very shortly contracted yellow disk of the corolla, smooth. *Style* white, upright, 2-3 times shorter than the stigmas: *stigmas* 2, filiform, thickish, upright, whitish. *Germen* pale, nearly round. *Capsule* globular: *seeds* 3, roundish, rough.

Seeds freely. Of the easiest propagation and culture. Differs from *siculus* by peduncles which are longer, not shorter than the leaves, by narrow bractes at a distance from the calyx, not broad ones close to the calyx; also in the colour of the corolla, and the comparative bareness of the calyx.



NOTE.

Suprà fol. 491; lines 13 and 16; for "*linn. soc. 12.*" read "*linn. soc. 13;*" having by mistake quoted the 12th Volume of the Linnean Transactions instead of the 13th, as containing Mr. Lindley's treatise on the *Pomaceæ*.



M. Hunt. del.

Pub. by J. Ridgway 170 Piccadilly Nov. 1. 1820

J. Walpole

DIOSPYROS Embryopteris. *Femina*.

Polyandrous Date-Plum. Fertile-flowered.

POLYGAMIA DIOECIA (v. DIOECIA POLYANDRIA.)

Nat. ord. GUAIACANÆ. Jussieu gen. 155. Div. I. Stamina definita.
EBENACEÆ. Brown prod. 1. 524.

DIOSPYROS. Flores polygami (in *Embryopteris* dioici). Cal. profundè 4-(nunc 3- v. 6-) fidus. Cor. urceolata, 4-(nunc 3- v. 6-) fida. MASC. Stamina basi corollæ inserta, ejusdem lacinis dupla (in *Embryopteris* quadrupla). Filamenta duplicata. Rudimentum pistilli. HERMAPH. FEM. Stamina effœta, pauciora. Germen 8-12-loculare, loculis monospermis. Bacca globosa, calyce patenti demùm reflexo. Brown prod. 1. 525.

EMBRYOPTERIS Gærtn. et Roxb. differt solùm staminibus ratione laciniarum corollæ quadruplis. Brown l. c.

D. Embryopteris, foliis lanceolato-oblongis, floribus axillaribus polyandris, bacca octosperma. Persoon syn. 2. 624.

Embryopteris glutinifera. Willd. sp. pl. 4. 836. Roxburgh corom. 1. 49. t. 70. Hort. Kew. ed. 2. 5. 407.

Embryopteris peregrina. Gært. sem. 1. 145. t. 29. fig. 2.

Mabola des Philippines. Cavanillea philippensis. Lamarck encyc. 3. 663. Jussieu in ann. du mus. 5. 418.

Tumika. Telingis. Mangostan-utan. Malaicis. Lym appel. Batavis.

Arbor mediæ magnitudinis, rectus, cortice glabriusculo fusco-ferruginoso, ramis sparsis, patentibus (novellis glabris). Fol. bifaria, alterna, lineariblonga, acuminata, lucido-glabra, coriacea, sesuncialia latitudine biunciali (è culturâ exoticâ nobis duplo minora v. magis) novella tenera atque rubra: pet. brevis: stipulæ solitariae, vaginosæ, evolvente folio disruptæ exindeque caduæ. MAS. Pedunc. axillaris, solitarius, nutans, floribus 3-4 v. pluribus, parvulis, albis: bractæ parvulæ, caduæ, singulo pedicello subtensæ. Fil. 20 v. circâ, apice bifida: anth. 40 v. circa, lineares, erectæ. FEMINA. Pedunc. axillaris, solitarius, simplex, uniflorus, flore albo plantæ masculæ plurimum majore. Fil. 1-4, parva, brevia: anth. lineares, parvæ, cassæ. Germ. globosum: styli 4: stig. sæpius trifida. Bacca globosa. Malum mediæ magnitudinis subæquans, pulposa, matura ferrugineolutescens, ferrugineo-farinosa: sem. 8, raro aliqua abortiva, nidulantia, reniformia, aciem versus attenuata. Roxb. (ex anglico versum).

The tree which furnishes the true ebony of the Cabinet-maker is a congener of the present, and has suggested the name of the order. *Embryopteris* is said by the Chevalier de Lamarck likewise to afford a hard close-grained jet-black ebony. It is dioicous, bearing the barren flowers on one tree, the fertile ones on another; and to this last side of the species our present sample belongs.

The drawing was taken in Mr. Kent's hothouse at Clapton, where the plant has now flowered, as we understand, for the first time in this country; though introduced in 1796 by Mr. Peter Good.

"A middle-sized tree, growing in India in the moist vallies among the mountains of the Circars; where it does not shed its foliage; and flowers in March and April. The fruit is eaten by the natives, but I cannot say that it is palatable: it is strongly astringent."

"*Trunk* straight, upright: *bark* pretty smooth, dark, blackish rust-colour; *branches* spreading, scattered, young shoots smooth. *Leaves* alternate, short-petioled, bifarious, linear-oblong, pointed, smooth, firm, shining, when young soft and red; six inches long by two broad: *stipule* single, sheathed, bursting and falling off when the leaf begins to expand. **BARREN-TREE.** *Peduncle* axillary, single, bowed, bearing 3, 4, or more small white flowers: *bractes* small, deciduous, one below each *pedicle*. *Filaments* about 20, bifid at the point: *anthers* about 40, linear, erect. **FERTILE-TREE.** *Peduncle* axillary, single, undivided, bearing one white flower, which is considerably larger than the barren ones. *Filaments* 1, 2, 3 or 4, small, short: *anthers* linear, small, sterile. *Germen* globular: *styles* 4, spreading: *stigmas* branched, generally 3-cleft. *Berry* globular, the size of a middling apple, pulpy, rusty-yellow when ripe and covered with a rust-coloured farina: *seeds* 8, which generally all ripen, immersed in pulp, kidney-form, edge thin." *Roxburgh.*

Dr. Roxburgh, speaking of the true Ebony (*Diospyros Ebenum*), remarks that it is only the heart of the tree that is black and valuable, and that the quantity is in proportion to the age of the tree. The outside is white and soft and soon decays.

Gærtner mistook the bottom for the top in his figure and description of the fruit of *Embryopteris*.



M. Barb. del.

Rubus fruticosus L. (R. fruticosus L.)

J. Walp. sc.

ROYENA pubescens. Fœmina.
Jacquin's Royena. Fertile-flowered plant.

DECANDRIA DIGYNIA. v. POLYGAMIA DIÆCIA.

Nat. ord. GUAIACANÆ. *Jussieu gen.* 155. Div. I.

EBENACÆ. *Brown prod.* 1. 524.

ROYENA. *Cal.* urceolatus 5-fidus. *Cor.* imo calyci inserta, urceolata brevis 5-loba. *Stam.* 10, filamentis brevibus corollæ insertis. *Germ.* superum desinens in *stylos* 2; *stig.* 2. *Caps.* supera 4-sulca 1-loc. 4-valv.; *nuces* 4 trigonæ arillo obvolutæ. *Arbustulae*; *flores axillares sæpè pedunculati interdum fœminei antheris effœtis.* *Juss.* l. c. 156.

ROYENA à **DIOSPYRO** distinguenda floribus hermaphroditis sæpiusque 5-fidis, filamentis simplicibus; variat ovario 4-6-8-loculari: **DIOSPYROS** lyciodes et hirsuta *Defontaines* à **ROYENÀ** itaque vix separandæ solummodò propter ovarium 6-8-loculare, sed hujus *Pericarpium* cortice capsulari 5-valvi secundum *Jacq.* fragm. 1. t. 1. fig. 2. **ROYENA** polyandra aliæque subsimilis inedita *Africæ australis*, distinctum genus constituunt, ob *flores polygamos*; masculorum *stamina* laciniis 4-pla, filamentis duplicatis, antheris barbatis; ovarium 4-6-loculare. *Brown prod.* 1. 526; in obs.

R. pubescens, (polygama, monogyna stigmatibus 5:) foliis obovato-lanceolatis pubescentibus. *Willd. enum.* 1. 457.

Royena pubescens. *Sweet hort. sub. lond.* 97.

Royena hirsuta. *Jacq. coll.* 5. 110. t. 13. fig. 1. *EjUSD. fragm.* t. 1. fig. 2; (non aliorum, neque synonymorum in loc. cit.).

Frutex 3-pedalis v. ultra erectus ramosus cortice badio-fuscescente: rami summi ramulique appressè villosi teretes foliosi floriferi ascendentes. Fol. obversè v. obovatè lanceolata utrinque appressè villosiuscula, apice obtusula v. cum brevi acumine, infrà longè in petiolum attenuata, margine brevè revoluta, suprà nitida, infrà opaca, uncialia ad triuncialia v. ultrà, juniora acumine breviori, sericea, mollia, adulta subcoriacea subdepilata acumine longiore. **HERMAPH. Fœm.** Pedunc. solitarii, axillares, ramulis et supernè in ramis racemosè digesti, sæpius 1- rarius 2-3-flori, recurvi, teretes, pilos sericeos viridi-translucens, plurimum breviores foliis, uniflori bractea foliacea supra medium, triflori eodem pedicellis lateralibus subtensâ, alterâ minimâ flori medio vicinâ. *Cal.* persistens coriaceo-herbaceus sericeus, citra medium usque partitus, ex campanulato atque triplo breviori corollâ in amplissimum stellato-explanatum procrepens, segmentis oblongo-acuminatis margine reflexis. *Cor.* **ARBUTI** *Unedonis* magnitudine vix æquans, ochroleuco-flavescens, opaca, urceolata, citra medium usque 5-fida, extus obsolete villosa; tubus brevis, oblato-ventricosus; limbus 5-partitus, contortus, infrà constrictius connivens, supernè reflexus, laciniis oblongis obtusis cum brevi acumine. *Stam.* 10, effœta, germine appressa atque æqualia: fil. duplicata? brevissima, carnea, robusta, viridia, glabra, imò margine tubi inserta: anth. cassæ, erecto-continuae, lanceolatae, appresso-hirsutæ, plurimum longiores filamento. *Germ.* ovato-rotundum, villosa-canescens: stylus brevis, sericeus, columellaris, in stigmata 5 filiformia ipso subæquilonga glabra apice dilatata discedens.

“*Cal.* persistit cum foliolis 5 reflexis et virentibus. *Pericarpium* subrotundum ferè uncialis diametri, ad tactum holosericeum, coriaceo-carnosum,

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“flavescens, unilocularis, 5-valvis, *valvis* lanceolatis acutis patentissimis. “*Sem.* oblonga, subteretia, exiguo mucrone terminata, nitida, castanei coloris, à maculâ nigrâ supernè notata, numero quidem naturali 10, sed plerumque pauciora, dum quædam abortant, inclusa et involuta singula in proprio glutine dulci fatuo et odore subnauseoso, quod fortî frictione inter digitos abscedit. Istiusmodi lobi glutinosi sunt 10 contigui sed sejuncti, et facile ab invicem separantur haud alitèr atque arilli in *MALVIS*. “Hi qui semine carent supernè et infernè corpusculum castaneum inclusum habent; rudimentum opinor seminis. Medio fructû ex *receptaculo communi* columna attollitur 5-sulcata pallidè flava apice 5-dentata et patula, cui lobi glutinosi adhæsère.” *Jacq. frag. loc. cit.*

A species judiciously separated by Willdenow in his “Enumeratio” from *hirsuta*, with which it had been very generally confounded.

Native of the Cape of Good Hope. The drawing was taken at the nursery of Messrs. Colville, in the King’s Road, Chelsea; where the plant flowers late in the autumn, and is kept in a warm greenhouse.

The genus does not appear to be even yet satisfactorily combined, nor its limits clearly distinguished from *Diospyros*, a species of which forms the subject of the preceding article.

We have not met with the barren-flowered plant of *pubescens*; where perhaps the flowers and stamens are more numerous than in the present. We apprehend that plants of it are occasionally polygamous, bearing some flowers, with perfect stamens and pistils, as well as others with either only perfect stamens or else perfect pistils. The number of the parts of the pistils seems to vary much in the different species in the genus.

An upright ascendingly branching shrub, three feet high or more, with a reddish brown bark: the tops of the branches and the branchlets villous, round, leafy, flower-bearing. *Leaves* obversely or obovately lanceolate, with a slight close-pressed nap on both sides, either obtuse or with a short point, long-tapered towards the petiole, shallowly revolute at the edge, shining above, opaque underneath, from one to three inches long or more; young ones silky soft with a shorter point, old ones somewhat coriaceous, almost without a nap and having a longer point. **FERTILE-FLOWERED PLANT.** *Peduncles* axillary, racemously disposed

on the branchlets and tops of the main branches, generally one sometimes 2-3-flowered, recurved, round, appearing green through a silky nap, much shorter than the leaves, with a foliaceous *bracte* above the middle, in the three-flowered ones with a bracte subtending each of the side-pedicles, and another just below the middle flower. *Calyx* permanent, coriaceous-herbaceous, silky, 5-cleft to beyond the middle, from campanulate and three times shorter than the corolla growing out into a very large flat star, with taper-pointed oblong segments reflexed along the edge and at last turned back from the seedvessel. *Corolla* hardly as big as that of the common ARBUTUS, pale-yellow, opaque, ceolate, 5-cleft to below the middle, obsoletely villous on the outside; *tube* short, oblutely ventricose; *limb* 5-parted, twisted, constricted at the lower part, reflexed at the upper, segments oblong obtuse with a short point. *Stamens* 10, abortive, even with and pressed close to the germen: *filaments* in pairs? very short, fleshy, robust, green, smooth, inserted round the edge of the bottom of the tube: *anthers* empty, continuously upright, oblong, taper-pointed, hirsute, much longer than the filaments. *Germen* ovately round, grey, and villous: *style* short, silky, columnar, parting into 5 filiform smooth *stigmas* as long as itself and widened at the end.

The following account of the fruit is from Jacquin's *Fragmenta*.

“ *Calyx* permanent, with five green reflexed segments. *Seedvessel* nearly round, not much less than an inch in diameter, velvety, with a partly fleshy and partly coriaceous rind, reddish yellow, one-celled, 5-valved, valves lanceolate pointed opening extendedly. *Seeds* oblong, roundish, terminated by a very small mucro (distinct sharp point), shining, chestnut-brown, marked at the upper part with a black spot, natural number when complete 10, though they are usually fewer, as some miscarry, each enveloped in its peculiar covering of a glutinous insipidly sweet and rather offensively smelling substance, which comes off by rubbing. The number of these glutinous lobes is ten; they are contiguous, but detached and easily separated from one another, nearly in the way of the separate capsules (or as children call them the cheeses) of the fruit of the Mallow. Those that are without seed, enclose a chestnut-coloured corpuscle at both their upper and lower parts,

which I take to be the rudiments of seeds. In the centre of the fruit rises, from the *common receptacle*, a 5-furrowed pale red-yellow column 5-toothed and spreading at the top, to which the glutinous lobes have at one time adhered."



M. Benth. det.

Det. by C. M. Benth. 17th Dec. 1. 1820.

J. W. H. det.

HOVENIA acerba.

Crab Hovenia.

PENTANDRIA MONOGYNIA.

Nat. ord. RHAMNI (RHAMNÆ). Jussieu gen. 376. Div. IV. Stamina petalis opposita. Fructus tricoccus.

HOVENIA. Cal. 5-fidus. Petala 5 convoluta. Stamina petalis obvoluta. Stylus 1; stigmata 3. Caps. pisiformis 3-sulca 3-locularis 3-valvis 3-sperma, basi calycis persistente infra cincta. (Sem. in loculamento unicum, glaberrimum, rubrum). Arbor; folia alterna (stipulacea?); pedunculi axillares et terminales dichotomi multiflori, apice post florescentiam divaricati, incrassati et carnosi edules sapore dulci, pedicellis brevibus linearibus unifloris, flores caduci, interdum 4-petali 4-andri. Juss. loc. cit. 361.

Hovenia acerba, foliis opacis pubescentibus integerrimis. Lindley MSS.

Arbuscula gracilis ramis virgatis divaricatis. Folia ovato-lanceolata, acuminata, integerrima, opaca, paulò rugosa, utrinque pubescentia, subtus glaucescentia. Flores Fructus ruber è pedunculis incrassatis, HOVENIÆ dulcis multoties minor, sapore acerbo. Lindley MSS.

“For this unpublished species of HOVENIA we are obliged to Mr. Lambert, in whose greenhouse at Boyton, it flowered last spring. The fruit (see the detached figure of it in the annexed plate) of which only a single sample had ripened in August, has an austere flavour very unlike that of HOVENIA dulcis, which is reported to be exceedingly grateful and similar in taste to a Bergamot Pear.”

“There is some uncertainty about the native country of the present species. Mr. Lambert’s plant is supposed to have been raised from fruit introduced from California. But we should rather consider it a native of the East Indies or China, both which countries produce HOVENIA dulcis; we have also noticed in Mr. Cattley’s hothouse at Barnet, young plants of an HOVENIA probably not essentially distinct from our present subject, and the seeds from which they have been raised were undoubtedly received from Calcutta.” Lindley MSS.

In the above observations the term fruit is used, not in the technical or restricted signification of seedvessel, but in its more general sense, when applied to the esculent part of a plant, which in this genus happens to be the forked

general footstalk (peduncle) on which the short partial ones (pedicles) of the seedvessel stand. This enlarges in *dulcis* after the flower decays into an unevenly roundish oblong fleshy red fruit, which is eaten both in China and Japan.

We had no opportunity of describing the flowers of the present plant after the draughtsman had done with the specimen.

NOTE.

In a recent number of Curtis's Botanical Magazine we find that the *PRUNUS japonica* of the 27th article (Volume I.) of this work, is asserted to be the *AMYGDALUS pumila* of Linnæus; and the stone of the fruit to have the character which marks it for a congener of *AMYGDALUS*, and not of *PRUNUS*. On both these points we shall make some remarks in the Appendix to the present Volume.



St. Louis, Mo.

St. Louis, Mo. (St. Louis, Mo. 1882).

St. Louis, Mo.

DIOSMA dioica. Mas.

Dioicous Diosma. Barren-flowered plant.

PENTANDRIA MONOGYNIA.

Nat. ord. RUTACEÆ. Jussieu gen. 269. Div. III. Genera Rutaceis affinia.

DIOSMÆÆ. Brown gen. rem. in append. to Flind. voy. 2.

545.

DIOSMA. Suprà vol. 5. fol. 366.

Div. Agathosma. Corona è filamentis 5 alternis sterilibus cochleari-petaloideis.

D. dioica (mas), foliis lanceolatis, glabris, superioribus verticillato-trinis; floribus axillaribus aggregato-trinis, pedunculis 2plo brevioribus folio.

Frutex proliferò-ramosus, 2-3-pedalis; rami subvertillati, foliosi teretes villosi virgato-ascendentes, cortice rubro-fusco rimis striato. Fol. coriaceo-firma, patentissima, angusta, lanceolata, $\frac{1}{2}$ uncie longa latitudine lineari v. sesquilineari suprà obscuro-virentia lævia, subtus punctata pruinoso-pallentia, margine deflexa punctisque glandulosis denticulata, apice glanduloso acutulo, costâ suprà obsoletiusculâ, infrâ immersâ saturatiùsque virente, inferiora subdecussato-opposita, superiora (floralia) subverticillato-trina: petiolus brevis, appressus. MAS. Flores inodori, axillares, per trinos aggregati; fasciculi solitarii, numerosi, infrâ summos ramos racemoso-digesti: pedunc. filiformes, uniflori, 2plo ferè breviores folio, glanduloso-papilloso, bracteis pluribus imbricatis minutis crassis ovatis glandulosis ad basin cincti. Cal. pedunculi continuus similiterque papilloso, crassiusculus campanulato-patens ter v. ultrâ brevior corollâ semisfidus segmentis angulari-ovatis. COR. pet. 5 alba, disco supernè erubescencia, fundo calycis inserta, patentia, oblonga, obtusa, apice inflexa: corona triplo ferè brevior corollâ, connivens, ex lamellis (staminibus abortivis) 5 oblongis albis villosis tenuibus glandulâ virescente capitato-apiculatis. Fil. setacea, exserta, erecto-patentia, æqualia ante anthesin à medio duplicatim retrofractæ, exindèque erecto-explícandæ: anth. parvulæ, oblongæ, obversè subsagittatæ, ante anthesin luteo fuscoque rufescentes. Pist. obsoletum.

We do not trace our plant in any published species; nor find it in the Banksian or Lambertian Herbariums. It is said to be of very late introduction from the Cape of Good Hope. The flowers, in all the plants we examined, were provided with only a slight rudiment of a pistil in the midst of the natural quota of perfect stamens; whence we have assumed them to belong to individuals of the barren side of a dioicous species, and of which the fertile plant is still unknown to us, affording, as far as our acquaintance with the subject extends, an anomalous instance in the genus.

The foliage when handled diffuses the resinous smell which belongs, under various modifications, to all the genus.

The drawing was taken at Messrs. Colville's nursery in the King's Road; where the plant is kept along with the Cape Heaths.

An upright proliferously branched leafy shrub, about 3 feet high; *branches* subverticillate leafy round villous ascending rodlike with a brown streakily cracked rind. *Leaves* substantial, widespreading, linearly lanceolate, about $\frac{3}{4}$ of an inch long and about a line or a line and a half broad, dark green and smooth above, frosted and pale underneath, deflexed along the edge with glandular specks as if denticulated, somewhat ovate at the base, slightly pointed at the top, midrib obsolete above, underneath deep green and sunken; *lower leaves* decussately opposite, *upper* (floral) in whorls of three; *petiole* very short. **BARREN PLANT.** *Flowers* without scent, axillary, congregated in threes; *fascicles* solitary numerous racemosely disposed along the branches below the top: *peduncles* filiform, oneflowered, about twice shorter than the leaves, papulously glandular, environed at the base with several minute thick ovate glandular *bractes*. *Calyx* continuous with the peduncle and similarly papulous, thickish, campanulate spreading thrice shorter than the corolla or more, half 5-cleft, segments angularly ovate. *Petals* of the *corolla* white tinged at the upper part of the disk with pink, inserted at the bottom of the calyx, spreading, oblong, obtuse, inflected at the top: *crown* (abortive stamens) nearly thrice shorter than the corolla, converging, of 5 laminar oblong white villous thin pieces surmounted by a green gland. *Filaments* setaceous, protruded, uprightly spreading, equal, before complete expansion doubled close back from about the middle, gradually extending themselves: *anthers* small, oblong, obversely sagittate, before they shed their pollen reddish and variegated with yellow and brown.



M. Raut. del.

Pub. by J. Ridgway 170 Piccadilly Dec. 1. 1820.

J. Wells sc.

CYRTANTHUS odorus.

Sweet-scented Cyrtanthus.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. Jussieu gen. 54. Div. II.

AMARYLLIDEE. Brown prod. 1. 296. Sect. I.

CYRTANTHUS. *Spatha* uniflora v. umbellato-multiflora. *Cor.* nutans v. cernua, elongato-oblonga, tubulato-infundibuliformis, curva, limbo regulari subæquali, laciniis oblongis fauce brevioribus. *Fil.* brevia, fauce longè supra tubum inserta. *Sem.* numerosa, biseriato-cumulata, paleaceo-compressa, testâ fuscâ.

Cætera omninò AMARYLLIDIS; undè discrepat limbo breviorè fauce, non longiorè, filamentis fauce longè supra tubum insertis, non ore tubi infra faucem.

C. odorus, pauci (4?) flora; corolla rectiuscula subnutante, fauce angustè turbinata, limbi laciniis subdistantibus: antheris fauce inclusis, alternis 3 cæteris pro duplo eorum longitudinis demissioribus: foliis non glaucis.

Fol. 2-3, angusta, lineari-lorata, deorsum attenuata, longitudine scapi, non glauca. Umbella floribus pluribus (4) odoratis puniceis: pedunc. pluries breviores floribus, vel subnulli, virentes: spatha sphacelata, lanceolata, triplo ferè brevior umbellâ. *Cor.* angustè tubata, unciis 2 longior, curvo leni obsoletiore nutans; tubus gracilis, rotundatè trigonus in faucem æqualitè transeunt; faux angustè turbinata; limbus tubo cum fauce 4-plo ferè brevior, patens, laciniis subdistantibus lineari-oblongis planis obtusulis exterioribus subangustioribus acutioribusque. *Stam.* fauce inclusa: fil. brevia, conniventia, subulata, alterna 3 brevissima fauci proximè infra limbum inserta antheris incumbens, 3 altera plurimum demissiora antheris erectis: anth. oblongæ, polline flavo. Germ. oblongum, minimum, fusco-virens, ovulis numerosis compressis biseriato-cumulatis: stylus filiformis, medium attingens limbum, supra roscus: stig. 3.

An unrecorded species, introduced about two years ago from the Cape of Good Hope, by Messrs. Colville of the Chelsea-Nursery, in the King's Road, where the drawing was taken. It differs from all the species we are acquainted with, by the deep crimson hue and fragrance of the flowers: specially from *collinus* (see v. 2. fol. 162) by a foliage which is not glaucous, by a fewer-flowered more upright umbel, longer less curved slenderer corolla, more narrowly turbinate faux, less contiguously spreading segments, and essentially by having 3 alternate stamens placed lower than the others by twice the length of their anthers (when they have shed the pollen); whereas in *collinus* the tips of these reach to the base of the three upper, and rather above;

nor are there in *odorus* the six white parallel lines which in *collinus* traverse the germen and corolla longitudinally at equal distances. The differences of *angustifolius* are too manifest to require to be particularized.

Leaves 2-3, narrow, linear-lorate, tapered downwards about the length of the scape. *Umbel* several-(4-)flowered; *flowers* sweet, deep crimson: *peduncles* several times shorter, sometimes scarcely any, green: *spathe* sphacelate, lanceolate, nearly 3 times shorter than the umbel. *Corolla* narrow trumpet-shaped, more than 2 inches long, nodding with a gentle bend; *tube* slender with 3 rounded corners, passing insensibly into the faux; *faux* narrowly turbinate; *limb* nearly 4 times shorter than the tube and faux together, spreading, segments standing apart, linearly oblong flat bluntish, outer ones rather narrower and more pointed. *Stamens* enclosed within the faux; *filaments* short, converging, subulate, 3 alternate ones very short, inserted close below the limb, with incumbent anthers, the other 3 inserted pretty far below these, with upright anthers: *anthers* oblong; *pollen* deep yellow. *Germen* oblong, very small, brownish green; *ovula* numerous flattish, piled one upon the other in two rows: *style* filiform, reaching to the middle of the limb, pinkish above: *stigmas* 3.

It should be sheltered during the winter in a frame or greenhouse. Flowers in July or August.



N. Hart. del.

Publ. by J. A. H. J. 17/12. F. v. d. W. Dec. 1. 1820.

J. W. H. & Co.

CALOTIS cuneifolia.

Lachlan Calotis.

SYNGENESIA POLYGAMIA NECESSARIA.

Nat. ord. COMPOSITÆ. Adanson fam. 2. 103.

CORYMBIFERÆ. Jussieu gen. 177. Div. II. Recept. nudum. Semen papposum. Flores radiati.

CALOTIS. Recept. epaleatum. *Achenia* coronata paleis duabus oppositis aristisque 1-3, glochidatis. *Involucrum* subæquale, simplici vel duplici serie polyphyllum. *Brown MSS.*

Herbæ ramosæ, pilosiusculæ. Folia alterna. Involucra ramos terminantia, solitaria, planiuscula, foliacea. Ligulæ fæmineæ, numerosæ, imbricatæ, cæruleæ, post anthesin spiralitèr revolutæ et diu persistentes. Flosculi masculi, quinquefidi, flavi, antheris basi muticis. Achenia (semina Linn.) verticalitèr compressa, cuneata. Pappus persistens, è paleis lateralibus, dilatatis, latoribus quàm longis, auriculiformibus; et aristis longioribus sæpius duabus (anticâ et posticâ), extra medium vel apice solum aculeolis reversis. Receptaculum scrobiculatum vel subalceolatum convexum. Brown MSS.

Calotis cuneifolia, foliis cuneatis apice inciso-dentatis. *Brown MSS.*

Ramuli graciles erecti strictiusculi remotè foliosi. Folia sessilia, patentia, $\frac{3}{4}$ uncie longa v. circa, dentibus v. lobulis 3-5. Flores foliis remoti, diametro subsesquiunciali, radio violaceo-pallente. Involucr. (cal. Linn.) radiato-divaricatum, foliolis subbiserialis oblongis lanceolatisque, acutulis obtusulisque, albo-lineolatis. Ligulæ (fosc. radii) angustæ, lanceolato-lineares, extus pilosiusculæ, tubo viridissimo piloso: stigmata tenuissima: germ. marginè virescens, aristis bis brevius: fosc. disci pilosi, tubo gracili pallido virescenti, fauce subæquante limbum recurvum: anth. luteæ, suturis 5 fulvo-fuscescentibus, polline albido; germ. vertice mutico. Recept. virens.

The character of **CALOTIS** was formed, but not published, by Mr. Brown about fifteen years ago, from *C. dentex*, a species first observed by himself in New Holland, where it is not uncommon in the neighbourhood of Port Jackson. The present has been since found, during an expedition into the interior of the above country, growing on the banks of the river Lachlan, in 1817 by Mr. Allan Cunningham, who is commended by Mr. Brown, as "an indefatigable collector and acute observer." It was introduced in 1819 at the Physic Garden, Chelsea.

The generic name has been derived from the two membranous earshaped *paleæ* of the seedcrown, which are constant in number and form in the only two certain species yet

known, and constitute the most important character of the genus.

The following is the version of Mr. Brown's valuable definition of this curious genus.

Receptacle chaffless. *Seeds* crowned by two opposite chaffs, and from one to three barbed awns. *Calyx* nearly equal, of many leaflets in one, or two ranks. The species are herbaceous branching and slightly furred. *Leaves* alternate. *General calyxes* at the end of the branches, solitary, nearly flat, foliaceous. *Florets of the ray* fertile, numerous, imbricated, blue, rolled back spirally after expansion, and lasting for a considerable time: *florets of the disk* barren, 5-cleft, deep yellow. *Anthers* blunt at the base: *seeds* vertically compressed, cuneate. *Seedcrown* permanent, consisting of 2 dilated earshaped lateral *chaffs* (*paleæ*) broader than they are long, and of longer *awns*, generally two in number (one in front, the other opposite) and armed with small reversed prickles, either all the way from above the middle or only at the top. *Receptacle* pitted or lightly honeycombed, convex.

Cuneifolia is distinguished from *dentex* by cuneate leaves deeply indented at the top.

The drawing was made last summer from a plant at Messrs. Colville's, in the King's Road, which had been raised by Mr. Anderson in the greenhouse of the Physic Garden at Chelsea.



M. Herb. del.

Pub. by J. Ridgway 170, Piccadilly Dec. 1. 1820.

J. Wallis sc.

JASIONE perennis.
Perennial Sheep's-bit.

PENTANDRIA MONOGYNIA. (MONADELPHIA PENTANDRIA. Persoon syn.)

Nat. ord. CAMPANULACEÆ. Jussieu gen. 163. Brown prod. 1. 559.

JASIONE. Cal. 5-fidus. Cor. rotata, tubo brevissimo, laciniis 5-longis linearibus. Stam. 5, antheris in tubum coalitis. Stig. bifidum. Caps. 5-gona, 2-locularis, calyce coronata. Flores aggregati in calyce communi polyphylo supra receptaculum nudum. Caulis sæpè simplices. Capitula terminalia solitaria: flores centrales sæpè abortivi stigmatè indiviso. - *Habitus* SCABIOSÆ. Juss. loc. cit. 166.

J. perennis, foliis linearibus sublævibus planis obtusiusculis. *Lamarck encyc.* 3. 216. *illustr.* 724. *fig.* 2.

Jasione perennis. *Persoon syn.* 2. 215. *Lam. et Decand. flor. franç.* 3. 717. *Sweet hort. sub. lond.* 37.

Jasione montana (β.) *Willd. sp. pl.* 1. 888.

Jasione montana (β.) *radice perenni. Lin. suppl.* 392.

Jasione montana. *Villars dauph.* 2. 670; (*fide Decandollæi.*)

Caulis erectus simplicissimus v. de basi ramosus, in plantâ hortensi glaber in spontaneâ pubescens, pedalis v. plurimum altior, infra medium foliis crebris vestitus. Fol. numerosa, sparsa, exactè linearia, sesquiunciam ad 2 uncias cum dimidio longa latitudine subbilineari, obtusiuscula, integra, plana, in plantâ cultâ subglabra, in spontaneâ hispidius pubescentia. Capitula congesta, cærulea solitaria, montanæ majora, pedunculis aphyllis 6-8 uncialibus v. circâ insidentia. Involucrum è foliolis 12-13 planis horizontalibus margine acutè at rare dentatis. *Lam. loc. cit.*; (ex gallico versum).

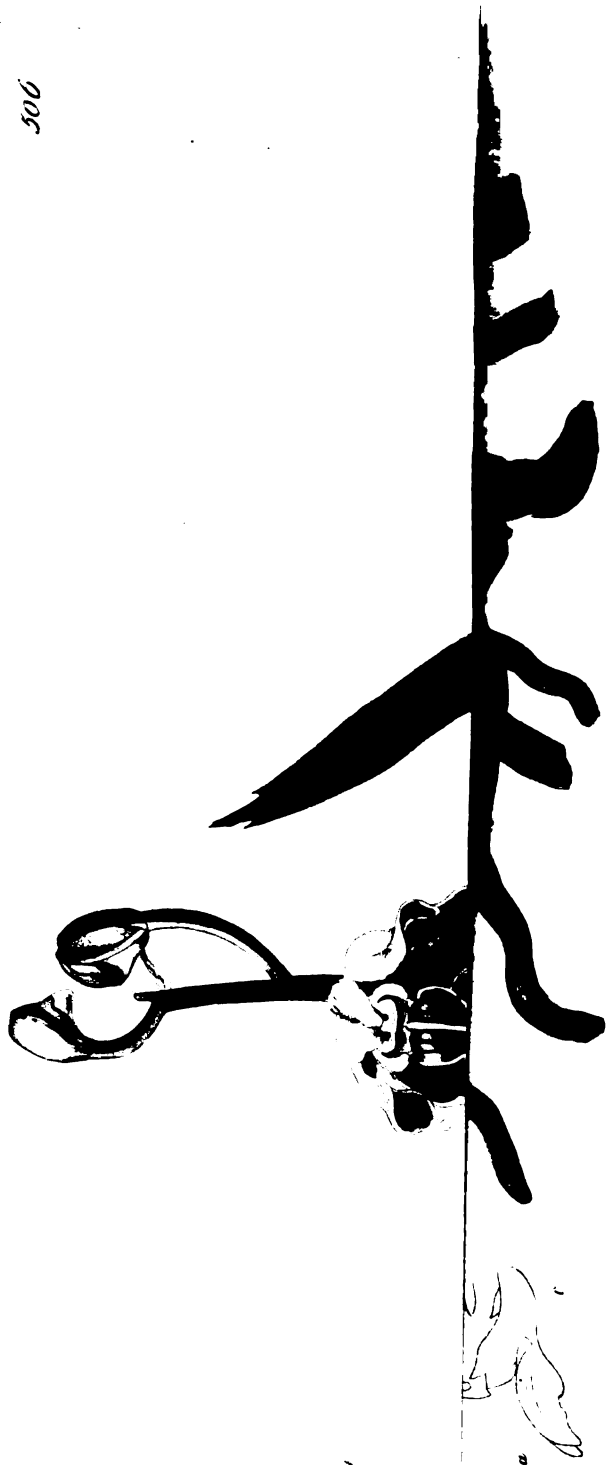
A species first distinguished from *montana* by the Chevalier de Lamarck, who observes that it not only differs in being perennial instead of annual, but likewise in having strictly linear leaves, which neither taper downwards nor are waved or curled at the edge. It is not noticed in the late edition of the Hortus Kewensis, though stated in Sweet's Hortus Suburbanus Londinensis to have been cultivated in our gardens in 1787. Native of the South of France.

The drawing was taken at the nursery belonging to Messrs. Colville, in the King's Road, Chelsea, where the plant is cultivated in a warm border in the open ground.

The following description is the English of an article of the ingenious and diligent Lamarck, in his Encyclopédie Botanique.

Stem upright, either simple or at times branching from the base, bare in the garden plant, hairy in the wild one, thickly leaved at the lower half, a foot or much more in height. *Leaves* numerous, scattered, exactly linear or straight-sided, from an inch and a half to two and a half long, about two lines broad, slightly blunted, entire, flat, nearly bare in the cultivated plant, slightly furred or hispid in the other. *Flowers* crowded into terminal solitary blue *heads* rather larger than those in *montana*, each head borne on a leafless *peduncle* about 6 or 8 inches long. *Involucre* of 12-13 flat horizontal leaflets with a few sharp teeth round the edge.

As yet rare in our flower-borders, though a free and abundant flowerer, of long duration and very ornamental.



S. M. D. 1827.

Colony, S. M. D. 1827.

M. D. 1827.

VANDA Roxburghii.

Chequer-flowered Vanda.

GYNANDRIA MONANDRIA.

Nat. ord. ORCHIDEE. Jussieu gen. 64. Brown prod. 1. 309. Div. IV. Anthera terminalis mobilis decidua. Massæ pollinis demum cereaceæ. Brown in Hort. Kew. ed. 2. 5. 205.

VANDA. Labellum calcaratum, cum basi simplici (breviusve productâ) columnæ apteræ continuum, trifidum, lobo medio carnosio. Petala patentia, distincta. Massæ pollinis 2, obliquè bilobæ. Brown MSS.

OBS. AERIDES paniculatum, (suprà v. 3. f. 220.) generis pristini species impar nimis huic (monente D. Brown) aptè satis associari potest. Parasiticæ ambæ.

Vanda Roxburghii, ovariis contortis, petalis oblongo-obovatis undatis, foliis obliquè tridentatis. Brown MSS.

Cymbidium tesselloides. Roxburgh MSS. cum iconè ined.

Vandá. (Sir William Jones in) asiat. res. 4. 302.

The generic character now given has been formed by Mr. Brown, so as to include *AERIDES paniculatum*, published provisionally by that generic name in our third Volume (fol. 220); but now it will be seen that this species is not a very close congener of the one before us. The *CYMBIDIUM tessellatum* of Roxburgh is not included in the present genus.

Mr. Brown had some scruples in not ranking the group under *ANGRÆCUM* of M. Du Petit-Thouars (of which a species is given in voy. de Bory de St. Vincent. 1. 359. tab. 19.), not being able from want of sufficient detail in the description of the structure of the parts of that genus, to decide satisfactorily, whether he ought to do so or not; and has at last been determined principally by the *label* in *ANGRÆCUM* being undivided and probably membranous, while in *VANDA* it is three-lobed and fleshy. He expects that several species of Swartz's genus *LIMODORUM* will be found to rank under the present.

This beautiful parasitic plant was imported by Sir Joseph Banks, and flowered last autumn in the hothouse at Springrove, now belonging to Lady Banks. It is common in most parts of Bengal, and grows on various trees, but

principally upon one which bears the Mango. We have already spoken of the culture best suited to tropical parasites in the 220th article of this Register.

The following description is from the manuscript of Dr. Roxburgh.

“ *Stem* creeping, sending forth long thick round branching fleshy ash-coloured *roots*, which fasten firmly to the trunk or branches of the tree the plant grows on. The plants are seldom more than two or three feet in length, for they decay at the base as fast as they shoot from the top. *Leaves* sheathing, bifarious, near together, recurved, linear, keeled, forebitten, about five or six inches long. *Scapes* generally axillary, solitary, naked, supporting from six to twelve large beautiful flowers. *Petals* 5, nearly equal, expanded, oblong, waved at the edge and here and there a little inflected, upper surface chequered with yellow and dusty ferruginous purple, under surface white: *label* shorter than the petals; *spur* conical, protruding towards the germen between the two lower petals; *lamina* (broad part) oblong, turgid, apex 3-lobed, sides inflected, so as to be convex above and deeply concave underneath, colour blueish purple towards the apex: *upper lip* or portion which forms the attachment of the base and horn to the base of the column of fructification, with two lateral obliquely broad lanceolate lobes having acute points incurved towards the summit of the column. *Column of fructification* thick, short, obtuse, open at the inner margin next the summit; this mouth or opening tapers down through the column into a point, which ends in the cavity of the germen; *anther* lidded, suborbicular, with two lidded cells for the two globular *pollen masses* which rise, when the lid is removed gently, with a jerk on their broad cordate filament, which is inserted on the anterior part of the top of the column, by a large funnellform base. If removed with less care, and before the pollen masses are ripe, these remain in their cells, and the funnelshaped base of the filament rises erect. *Stigma* or channel for conveying the subtle essence of the pollen to the germen, a clammy opening in the fore part of the column near its top. *Pericarp* clavate, with six sharp ridges running the whole length.” *Roxb.*



PASSIFLORA peltata.

Peltate Passionflower.

MONADELPHIA PENTANDRIA.

Nat. ord. PASSIFLOREÆ. Jussieu in ann. mus. 6. 102.

PASSIFLORA. Suprà vol. 1. fol. 13.

Div. (*Ebracteata*: *apetala*). *Foliis trilobis.*

P. peltata foliis peltatis profundè trilobis glabris, lobis lineari-lanceolatis divaricatis, petiolis biglandulosis, floribus apetalis. *Hort. Kew. ed. 2. 4. 152.*

Passiflora peltata. *Cavan. diss. 10. 447. t. 274. Willd. sp. pl. 3. 617.*

Passiflora hederacea; γ . *Lamarck encyc. 3. 38. n. 22.*

Grenadilla folio angusto tricuspidi, fructû olivæformi. *Tournef. inst. 240.*

Clematis indica, folio angusto trifido, fructû olivæformi. *Plum. amer. 70. t. 85.*

Fruticosa, depilis, caule infernè suberoso-corticato indè ramisque fusco-rubentibus subque lente puncticulis flavis crebrè aspersis. Fol. peltata, subcoriacea, obscuro-iridia, 3-nervia, nitida, margine subdeflexa linedque fuscâ tenui circumscripta; superiora majora palmato-triloba, lobis distantibus ad petiolum ferè usque discretis elongato-lanceolatis, medio submajore 3-4-unciali; inferiora minora, brevius divisa lobis ovato-acuminatis: pet. læves subnunciales, ad medium circa urceolato-biglandulosi: stipulæ erectæ, plano-subulatæ: cirrhi axillares, nunc flores intercipientes. Flores apetalî absque omni bractea vel involucre, chloroleuci, inodori, gemini, axillares, nutantes, diametro ferè biunciali: pedunc. fusco-purpureus, filiformis, duplo ferè brevior graciliorque petiolo, paulò suprà medium articulatus indèque crassior. Invol. 0. Cal. stellato-partitus disco plano subtùs subintruso atque decem-toroso: segmenta distantia, recurvo-patentia, à basi latè lineari-attenuatu, firmula, obtusula. Cor. 0. Corona duplex bis ferè brevior limbo calycis; radii numerosi, exteriores viridi-lutescentes lineolis fuscis paucis maculati, elongato-teretes, obtusi: interiores alterni capillares, longitudine tantùm operculi, fusco-purpurei, albo variegati obtusi: operculum plicatum purpurâ varium; nectarium simplex planum: septo interiori brevi erecto, crasso, margine pruinoso, nigroque-maculato. Pist. calycem æquans: stipes teres coronam subexcedens pallidus lineolis interruptis fuscis punctatus: fil. ligulata, pallida, antheris oblongis viridibus longiora. Germ. ellipticum glabrum viride: styli cum stigmatibus clavati, virides, longiores germine; stig. subgloboso-convexa.

This pretty species is seldom seen in flower in our collections; nor has it been figured in any of the popular publications. It comes near to *suberosa*, and, like that, has neither involucre or bractes, nor petals, but differs, besides in having the upper leaves more deeply divided, by all the leaves being peltate, that is, with petioles inserted within the disk and not at the edge as there, and by flowers with twice the circumference of those of the other. But it comes

still nearer to *hederacea*, where the leaves are likewise peltate, but larger, and more shallowly divided.

Native of the West Indies; whence it was introduced in 1778. A plant flowered in September in the hothouse at the Chelsea Nursery belonging to Messrs. Colville, in the King's Road; where the drawing was taken.

The species has been enumerated in Mr. Pursh's *Flora of North America* as a native of Virginia and Georgia; but the prototype sample in Mr. Lambert's Herbarium, consists of a single detached leaf, procured from some other collection, and does not we suspect even belong to the species.

A smooth twining shrub: *stem* coated below with a pale corky rind, above and at the branches dark red and thickly besprinkled with minute yellow dots, scarcely perceptible without a glass. *Leaves* peltate, subcoriaceous, of a dark shining green, 3-nerved, deflexed towards the edge, and bordered with a fine dark line, *upper ones* palmately 3-lobed, lobes wide asunder, separated almost to the petiole long-lanceolate, the middle one rather the largest, 3-4-inches in length; *lower ones* smaller, more shallowly divided, lobes ovate taper-pointed; *petiole* smooth, about an inch long, with two small dark red opposite lateral cupped glands; *stipules* subulate, flat, upright; *tendrils* axillary, sometimes one between the two flowers. *Flowers* without either involucre or bracte, or corolla, whitish green, scentless, in axillary pairs, nodding, almost 2 inches in diameter: *peduncle* dark red, filiform, nearly twice shorter and slenderer than the petiole, jointed a little above the middle and thickest beyond the joint. *Calyx* stellately five-parted, slightly dented underneath the disk with a circle of ten shallow nodules: *segments* wide asunder, recurvedly spreading, linear and tapered from a broad base, rather substantial, bluntish. *Crown* of two rows, twice shorter than the limb of the calyx; *outer rays* numerous greenish yellow and slightly marked with dark broken linear stains, filiform, obtuse; *inner ones* alternate with the outer, capillary, only as long as the lid of the nectary, dark purple mottled with white, obtuse: *lid* (of the nectary) plaited, mottled purple; *nectary* simple, flat, inner wall short upright thick frosted and stained with black at the edge. *Pistil* even with the calyx: *shaft* round, rather taller than the crown pale, spotted with small dark broken lines: *filaments* ligulate, pale, longer than the oblong green *anthers*. *Germen* elliptical, smooth green: *styles* clavate, green, longer than the germen; *stigmas* subglobularly convex, green.



M. Hance, del.

Publ. by J. Ridgway 170 Silver City, N. Mex. 1821.

J. Hance, x.

HELIANTHUS *atrorubens*.

Shagreen-leaved Sunflower.

SYNGENESIA POLYGAMIA FRUSTRANEA.

Nat. ord. COMPOSITE. Adanson fam. 2. 103.

CORYMBIFERÆ. Jussieu gen. 177. Div. VI. Receptaculum paleaceum. Semen apice dentatum aut paleaceum. Flores in plurimis radiati, in paucis flosculosi. Receptaculum HELENII subnudum.

HELIANTHUS. Flores radiati, flosculis medio ventricosus (tubo brevissimo angusto) ligulis neutris. Cal. magnus imbricatus squarrosus. Sem. apice 2-paleacea paleis acuminatis deciduis. Recept. planum. *Herbæ sæpe altissimæ; folia aspera, opposita, aut alterna, flores axillares aut terminales, interdum maximi, disco nonnunquam subfusco.* Juss. loc. cit. 189.

H. atrorubens, totus hispidus; caule supernè nudiusculo laxè paniculato, foliis spathulatis ovatis crenatis triplinerviis scabris, squamis calycinis ovato-lanceolatis longitudine disci atropurpurei. *Pursh amer. sept. 2. 570.*

Helianthus atrorubens. *Lin. sp. pl. ed. 2. 2. 1279. Mill. dict. ed. 8. n. 9. Willd. sp. pl. 3. 2245. Michaux bor. amer. 2. 140. Hort. Kew. ed. 2. 5. 129. Nuttall gen. 2. 177.*

Helianthus missuricus. *Sprengel cent. spec. minùs cognit. 21. n. 44.*

Helianthus diffusus. *Curtis's magaz. 2026.*

Helianthus foliis ovatis crenatis 3-nerviis scabris, squamis calycinis erectis, longitudine disci. *Gron. virg. ed. 2. 128.*

Corona Solis minor disco atrorubente. *Dill. eltham. 111. t. 94. f. 110.*

Corona Solis caroliniana, parvis floribus, folio tinervi amplo aspero, pediculo alato. *Mart. cent. 20. t. 20.*

Planta aspera, perennis, floribunda, subtripedalis radice repente: caules plurimi, teretes, strigosi, rigidi, ramosi; rami elongati, divisi, remotissimè alternèque foliosi corymboso-fastigiantes, ramuli axillares suboppositi pedunculo longo subaphyllo strictissimo strigilloso anguloso-striato unifloro sæpè rubescente (haud rarè cum folio prope florem posito) terminati. Fol. sessilia, subopposita, rariùs verticillato-trina, cinereo-virentia, opaca, utrinque punctis callosis setiferis asperrima; inferiora oblongo-ovata v. elliptico-lanceolata, infra cuneato-attenuata atque integra, supra appressè serrata, media oblonga, infernè attenuata, summa spathulato-oblonga, alterna, integra: majora 6-7-uncialia latitudine 2-3-unciali. Cal. campanulatus, atrovirens, glabriusculus, alternè sub4seriatus, arcè imbricatus, brevior disco, foliolis ovato-lanceolatis, ciliolatis concaviusculis. Corolla diametro 3-4-unciali v. majore: radius neuter, aureo-flavescens flosculis à 16 ordine simplici ad numerosos ordine duplice, elongato-oblongis ab uncia brevioribus ad sesquiunciam longiores, plicato-striatis, acutulis: discus hermaphroditus diametro subunciali, atro-rubens; flosce. flavi limbo ustulato-rubente, villosi, tubo brevissimo, fauce longà basi ventricosà, limbo 4-plo breviorè patente laciniis ovatis; germ. cuneato-oblongum, sub4gono-compressum villosum album; pappus paleæ 2 oppositæ lanceolatæ bis breviores flosculo, ramentis brevissimis intermediis connexæ; stig. vitellina, linearia, revoluta: anth. ustulato-fuscae, polline flavo. Recept. convexum, paleaceum, paleis navicularibus albo-striatis, carinà ciliatis, apice purpureo-virentibus fornicatis villosis ciliatis.

HELIANTHUS, with the exception of one or two of the species, is confined to North America. The present species, in our view, is one of the most attractive of the hardy ornaments of the pleasure-ground, being neither so tall nor heavily leaved as the others, and producing from its numerous subdivided stems a profusion of the gayest coloured blossom that suffers no intermission from August to October. It seems to do best in a strong clayey soil. Mr. Nuttall found it all over Upper Louisiana, others in Pensylvania and Carolina. The root is creeping, and affords the easiest means of propagation. The flowers vary much in size, and are seen from about $2\frac{1}{2}$ to near 5 inches in diameter, even on the same plant, having sometimes a small spatulate leaf on the peduncle just below the calyx, at other times none within a foot or more of the flower. The foliage, which grows chiefly on the lower part of the plant, is of an opaque dull dusty green, with a surface as rough as shagreen, and nearly as hard as emery paper, and makes but little appearance; the branches, the divisions of which are terminated by long oneflowered straight upright generally leafless peduncles, present a loose spreading corymb of flowers at the height of about 3 feet or more.

Cultivated by Dr. Sherard, in the celebrated garden at Eltham, before 1732; but seems to have become rare, till lately introduced by Mr. Lambert, who raised his plants from Louisiana seed. The drawing was taken at the collection of Comtesse de Vandes, Bayswater.

The *Compositæ* (commonly called Syngenesious plants) form the tenth class of Jussieu's arrangement, and are divided into three orders; viz. *Cichoraceæ*, *Cinarocephalæ*, and *Corymbiferæ*. Since this division, the study of the class has occupied much of the attention of Messrs. Cassini and Brown; but no definite arrangement has been given to the public, since that of Jussieu.

The following valuable observations are from Mr. Brown's Remarks upon the Congo Herbarium.

“**COMPOSITÆ.** It is unnecessary here to enter into the question whether this family of plants, of which 3000 species are already known, ought to be considered as a class or as an order merely; the expediency of subdividing it, and affixing proper names to the divisions, being generally ad-

mitted. The divisions or tribes proposed by M. Cassini, in his valuable dissertations upon this family, appear to be the most natural, though as yet they have not been very satisfactorily defined."

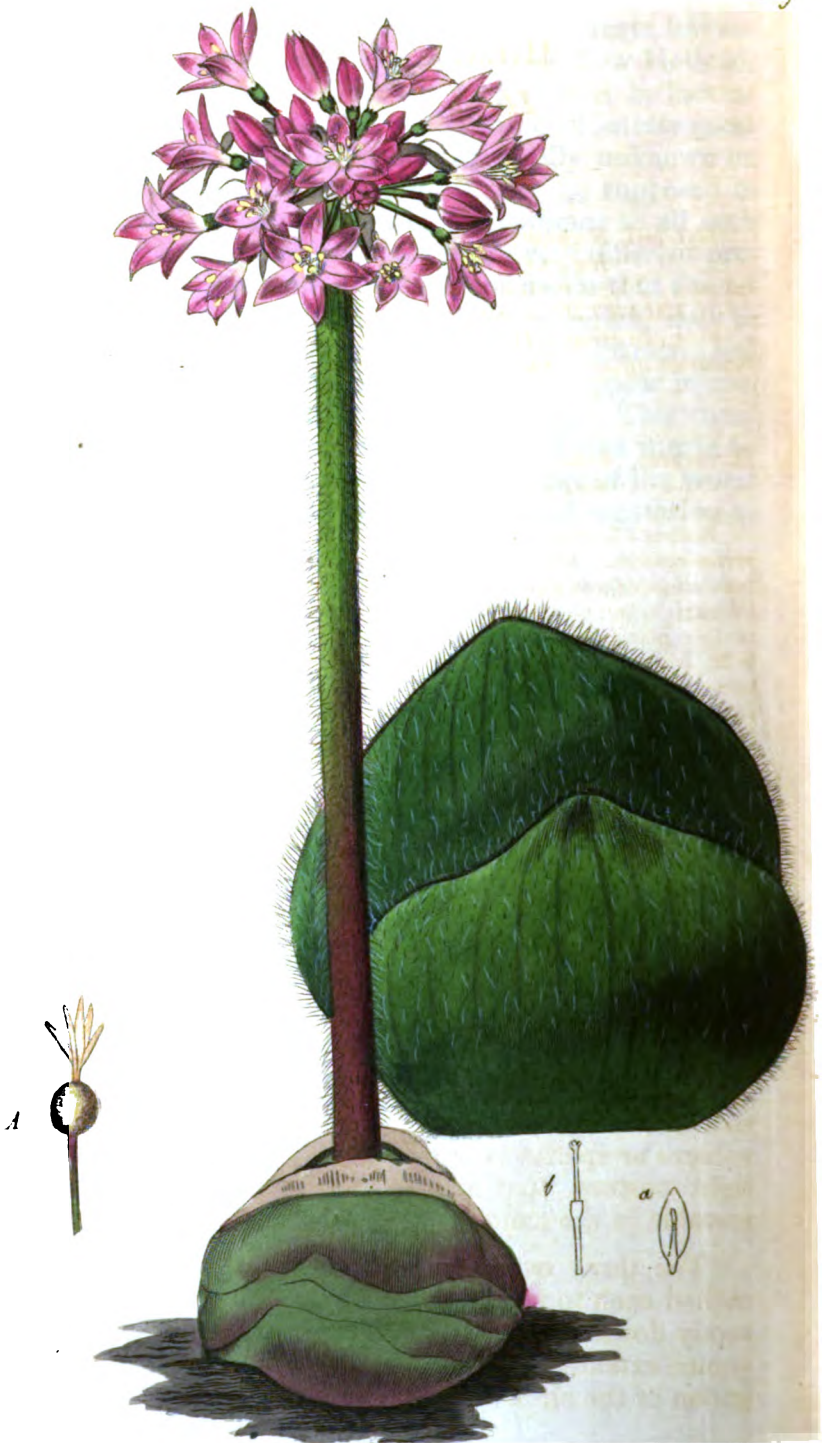
"Baron Humboldt has stated, that *Compositæ* form one sixth of the Phænogamous plants* within the tropics, and that their proportion gradually decreases in the higher latitudes, until in the frigid zones it is reduced to one thirteenth. But in the Herbarium from Congo *Compositæ* form only one twenty-third, and both in Smeathman's collection from Sierra Leone, and in Dr. Roxburgh's Flora Indica, a still smaller part, of the Phænogamous plants. In the northern part of New Holland they form about one sixteenth; and in a manuscript catalogue of plants of equinoctial America, in the library of Sir Joseph Banks, they are nearly in the same proportion."

"In estimating the comparative value of these different materials, I may, in the first place, observe that though the herbarium from Congo was collected in the dry season of the country, there is no reason to suppose on that account that the proportion of this family of plants, in particular, is materially or even in any degree diminished, nor can this objection be stated to the Sierra Leone collection, in which its relative number is still smaller."

"To the *Compositæ* in Dr. Roxburgh's Flora Indica, however, a considerable addition ought, no doubt, to be made; partly on the ground of his having apparently paid less attention to them himself, and still more because his correspondents, whose contributions form a considerable part of the Flora, have evidently in a great measure neglected them. This addition being made, the proportion of *Compositæ* in India would not differ very materially from that of the north coast of New Holland, according to my own collection, which I consider as having been formed in more favourable circumstances, and as probably giving an approximation of the true proportions in the country examined. Baron Humboldt's herbarium, though absolutely greater than any of the others referred to on this subject, is yet, with rela-

* That portion of the vegetable creation where the stamen and pistillum are manifest, as distinguished from Cryptogamous and Agamous plants, where the existence of these parts is either only presumed from analogy, as in the first of the two, or denied altogether, as in the latter.

tion to the vast regions whose vegetation it represents, less extensive than either that of the north coast of New Holland, or even of the line of the Congo. And as it is in fact as much the Flora of the Andes as of the coasts of intratropical America, containing families nearly or wholly unknown on the shores of equinoctial countries, it may be supposed to have several of those families which are common to all such countries; and among them *Compositæ*, in very different proportion. At the same time it is not improbable that the relative number of this family in equinoctial America, may be greater than in the similar regions of other intratropical countries; while there seems some reason to suppose it considerably smaller on the west coast of Africa. This diminished proportion, however, in equinoctial Africa would be more remarkable, as there is probably no part of the world in which *Compositæ* form so great a portion of vegetation as at the Cape of Good Hope."



M. Hart. del.

Pub. by J. Ridgway 170 Piccadilly Jan. 1. 1821.

J. Walte. sc.

HÆMANTHUS carneus.

Hairy pink Hæmanthus.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. Jussieu gen. 54. Div. II. Germen inferum.

AMARYLLIDEE. Brown prod. 1. 296. Sect. I. Radix bulbosa. Flores spathacei umbellati, raro solitarii.

HÆMANTHUS. Suprà vol. 3. fol. 181.

OBS. In germine HÆMANTHI carnei ovula inversa summo angulo loculamentorum affixa. Vix character in genere constans?

H. carneus, foliis 2 rotundo-ovatis acuminatis capoque pilis retrorsis undique hirsutis, spatha sphacelata reflexa umbella brevior, staminibus inclusis.

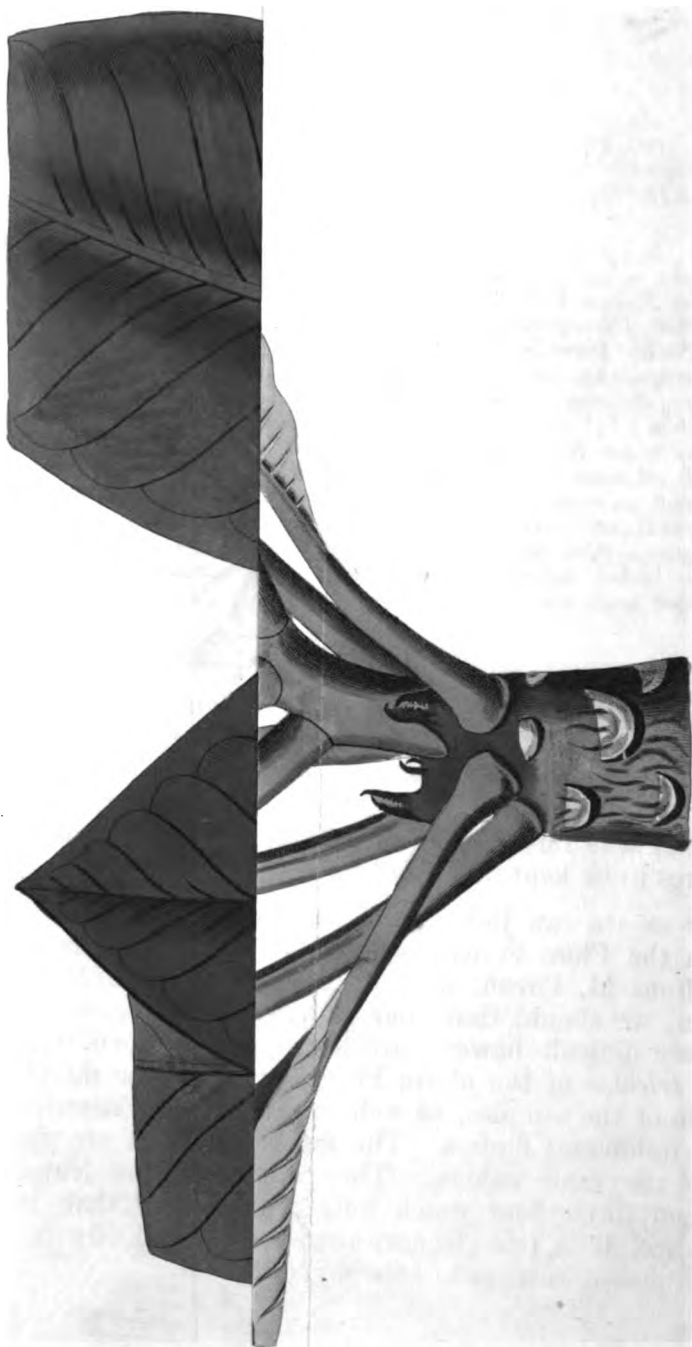
Bulbus è laminis imbricato-bifariis introrsum gradatim longioribus compresso-conicus. Fol. scapo tardiora duploque breviora, erecto-divergentia pubescentiam canam viridi-translucentia. Scapus (subspithamæus) compresso-columnaris robustus, marmoratimpur purascens, retrorsim pilosus. Spatha imparitè plurivalvis sphacelato-membranacea, valvis reflexis lanceolatis: umbella laxius multiflora, pedicellis teretibus subrubentibus glabris: cor. lætè carnea, semunciam circitèr longa, turbinata; tubus 3-4plo brevior limbo patente æquali; lacinia ovali-v. obverso-oblongæ. Stam. erecta; fil. duplo breviora limbo, disco tubuloso corollæ adnata, alternè sublongiora, alba, stricta, subulata, crassiuscula: anth. erectæ, introrsæ, ovali-oblongæ, breves, mucronato-apiculatæ, ab imo dorso affixæ, polline flavo. Germ. subrotundum exsulcum estriatum semine Sinapeos vix majus glabrum rubido-virescens; loculamenta monosperma, ovulis oblongiusculis summo angulo loculamenti affixis. Caps. subglobosa, lutescens, magnitudine Pisi vel circitèr.

An unpublished species, agreeing with *lanceæfolius* in several peculiarities which distinguish that species among its congeners, but differing specially from it by shorter and broader leaves shaggily furred on both sides, and by stamens shorter than the corolla instead of overtopping it. Its involucre or spathe is not coloured, nor disposed in the upright posture, that affords the corollalike appearance observable in the majority of this genus, as far as yet known.

The three ovula of the germen of our plant were attached each to the upper corner of its cell and pointed directly downwards. We are not aware how far this circumstance extends in the genus, but shall attend to the investigation of the circumstance.

Introduced about two years ago from the Cape of Good Hope by Messrs. Colville, at whose nursery in the King's Road the present drawing was made the summer before last.

Bulb compressedly conic, laminæ bifarious imbricated, inner ones longer. *Leaves* two, opposite, round-ovate, with a short point, coming up after the scape, shaggily and reflexly furred on both sides, twice shorter than the scape. *Scape* about 7 inches long, compressedly columnar, purplish, mottled, reflexedly hairy. *Spathe* of several unequal lanceolate valves, aridly membranous, reflexed. *Umbel* loosely manyflowered: *pedicles* smooth, filiform, reddish: *corolla* brightish pink, about half an inch long, turbinate, *tube* 3 times shorter than the spreading equal *limb*, *segments* ovally or obversely oblong. *Stamens* upright; *filaments* twice shorter than the limb, adhering to the short tubularly contracted disk of the corolla, white, stiff, subulate, thickish, alternately longer: *anthers* upright, ovally oblong, short, mucronate (tipped with a short distinct point), fixed on near the base at the back; *pollen* deep yellow. *Germen* roundish furrowless streakless, not much bigger than a grain of mustard-seed, smooth, green tinged with red; *cells* oneseeded, *ovula* somewhat oblong, turned downwards. *Capsule* about the size of a pea, of a yellowish dingy green colour.



M. H. del.

Stiquay 170, Paradijs, Jan. 1, 1821.

Stiquay

PLUMERIA tricolor.

Tricolor Plumeria.

PENTANDRIA MONOGYNIA.

Nat. ord. APOCYNÆE. *Jussieu gen.* 146. *Div. I.* Germen duplex. Fructus bifollicularis. Semina non papposa.

PLUMERIA. Suprà fol. 480.

P. tricolor, foliis oblongis acutis acuminatisque, marginibus planis corollis tricoloribus. *Ruiz et Pavon fl. peruv.* 2. 20. t. 139.

Plumeria tricolor. Persoon syn. 1. 268.

Yuracppaco Suche. *Peruvianæ.*

Arbor 6-oryaliæ lactifera: truncus erectus teres cinereus, comâ magnâ subglobosâ: rami dichotomi tortuosi fragiles medullosi crassi petiolorum vestigiis cicatriculati. Fol. sparsa oblonga utrinque acuta, integerrima, marginibus planis, venoso-reticulata, venis majoribus horizontalibus vix incurvis rubris: petioli ad basin internam glandulis duobus conneris. Pedunculi striati rubicundi pubescentes umbellato-cymosi multiflori; pedicelli gemini uniflori, bracteolâ ovatâ concavâ caducâ suffulti. Cal. rubicundus quinque-crenatus pubescens. Cor. odoratissima, pollicaris: tubus rectus ruber: faux crocei coloris: limbus patens, intus albo-roseus, extus dimidiatim ruber et albus. Folliculi spithamei, fusci: sem. fusco-pallentia. *Ruiz et Pavon loc. cit.*

This is the second species of this fine genus, for the introduction of which we are obliged to Mr. Lambert, by whom the sample for the drawing was kindly sent, from his collection at Boyton-house, where the plant flowered this summer. It was raised from seed from ~~the West Indies~~; and requires to be kept in the hothouse.

As far as we can judge from the figure of *PLUMERIA tricolor* in the *Flora Peruviana*, and the prototype sample received from M. Pavon, now included in Mr. Lambert's Herbarium, we should think our plant of that species. It is extremely difficult however to distinguish between *carinata* and *tricolor* of the above *Flora*, owing to the dilapidated state of the samples, as well as the pointless descriptions and indifferent figures. The flowers of both are described of the same colour. The petioles of the leaves indeed seem throughout much longer in *tricolor* than in *carinata*; and it is this circumstance that has chiefly decided our opinion in regard to the present plant.

Tricolor is much cultivated in the gardens of Pèru; and is described as follows, in the *Flora Peruviana*.

A tree from thirty to forty feet high, full of milklike juice: *stem* upright, round, ash-coloured on the outside; *branches* forming a large round head, forked, crooked, brittle, full of pith, thick, scarred where the foliage has fallen off. *Leaves* scattered, oblong, pointed at both ends, entire, flat at the edges, reticulately veined, with larger horizontal red side-veins which are scarcely imbowed: *petioles* furnished with two small connected *glands* on the inside of their base. *Peduncles* fluted, red, pubescent, umbellately cymose, manyflowered; *pedicles* in pairs, oneflowered, furnished at the base with an ovate concave caducous *bractelet*. *Calyx* reddish, 5-notched, furred. *Corolla* very fragrant, more than an inch in diameter: *tube* straight, red: *faux saffron*-coloured: *limb* spreading, white and rose-red within, segments on the outside white and red by halves. *Follicles* (indehiscent seedvessels) a span long, brown: *seeds* pale brown.

We had no opportunity of inspecting the plant in a fresh state.

We received by the civility of Sir Abraham Hume a very fragrant **PLUMERIA** with yellow flowers, produced in the collection at Wormleybury; but the corollas had closed, and could not be brought to expand again so as to serve the purpose of our draughtsman.



M. Hall, del.

Pub. by J. H. Knapley 170 Piccadilly Jan. 1. 1821.

J. Hall, sc.

GRIFFINIA parviflora.
Small-flowered Griffinia.

HEXANDRIA MONOGYNIA.

Nat. ord. NARCISSI. *Jussieu gen. 54. Div. II.*

AMARYLLIDÆ. *Brown prod. 1. 296. Sect. I.*

GRIFFINIA. *Nobis supra fol. verso 444. in notâ.* Spatha bivalvis *umbellâ* polyanthâ brevior. Cor. infundibuliformis, nutans; *tubus* brevis; *limbus* 6-partitus inæqualis bilabiato-campanulatus. *Fil.* summo tubo inserta, alternè longiora, unum assurgens, cætera declinata: *anth.* incumbentes. *Germ.* 3-loculare; *ovatis* 2 parallelo-erectis imo cujusque loculamenti angulo annexis. *Stylus* tristriato-filiformis: *stig.* simplex. *Capsula* pedunculata, membranacea: *sem.* subsolitaria, obovata, nitida, apice chalazâ fuscâ insignita.

Bulbus tunicatus. Flores *scapum subcylindricum terminantes, violaceo et albo varii.* Fol. 2-3, coriacea, *petiolata, laminâ oblongâ costato-nervosâ, reticulato-venosâ.* Differt AMARYLLIDE stamine uno cæterorum directione deflectente; ovulis *parallelo-gemellis erectis fundo loculamentorum insitis; foliis petiolatis, cum nervis pluribus longitudinalibus costato-prominentibus.*

Semina, secundum observationes Dom. Brown, obovata, ventricosa, nitentia ochroleuca; umbilicus basilaris: apex chalazâ fuscâ insignitus; raphe tenuis, immersa: integumentum duplex, exterius membranaceum nitens, per lentem pulchrè areolatum, ventre longitudinalitèr incrassatum, præsertim in regione umbilici; membrana propria tenuissima, albumini adhærens, separabilis tamen, evasculosa, basi chalazæ inserta cæterùm libera: albumen semini conforme, densè carnosum: embryo axilis, longitudine dimidii albuminis, cylindraceus; radícula umbilico approximata, apice exserto. Brown MSS.

G. parviflora, foliis ovali-lanceolatis petiolo transversè ancipiti; umbella insignis pedunculata; corollæ laciniis uniformibus.

Bulbus ovatus, ovum columbinum mole subæquans. Folia GRIFFINIÆ hyacinthinâ minora; petiolo transversè compresso. Scapus tereti-subcompressus. Spatha arida, reflexa, valvis lanceolatis. Cor. lilacino-palescens, turbinate-rotata, $\frac{3}{4}$ uncie longitudine vix excedens: tubus germinis concoloris isoperimetri continuus, multoties brevior limbo: limbi lacinie 5 labium superius constituentes, altera porrectior inferius; omnes spathulato-lanceolatae, 3 exteriores mucronatae, 3 superiores coloratiores proximiores, summa media sublatior, laterales 2 inferiores divaricatae, ima media reliquis plurimum minor, albicans. Stam. bis ferè breviora limbo: fil. violaceo-albicantia, subulato-filiformia. Germ. ovali-oblongum, lucidum: stylus violaceo-palescens, rectior, subulato-filiformis, strictus, triqueter, puncto stigmatoso nudo acuto terminatus. Sem. obovato-oblonga, lucida, melino et fusco varia, magnitudine Pisi grandiusculi.

This genus, founded on *AMARYLLIS hyacinthina*, was proposed in a note at the end of the 444th article of our Register. Since then the present species has been introduced

from Bahia in the Brazils, by the gentleman whose liberal exertions in favour of Botany are intended to be commemorated by the generic name. It flowered last autumn in the hothouse at South Lambeth.

The principal points by which GRIFFINIA is distinguished from AMARYLLIS, are, the having one stamen which assumes a different direction from the other five; a germen in which every cell contains two upright parallel *ovula* affixed to its lower corner; and by the petioled prominently ribbed foliage.

In a plant of GRIFFINIA *hyacinthina*, that flowered last summer at Mr. Griffin's, we were made to observe a thick brownish crenulated cartilaginous ridge or margin that ran along opposite sides of the scape, overlooked by us when we described the plant, and of which there is no appearance in *G. parviflora*. If this circumstance is constant, and we have been assured it is, it forms a curious specific mark.

Bulb in *parviflora* tunicated and about the size of a pigeon's egg. *Leaves* 2-3 much smaller than those in *hyacinthina*; *petiole* transversely compressed and two-edged; *blade* ovally lanceolate. *Scape* cylindrical, compressed. *Spathe* sphacelate, reflexed, valves lanceolate; *umbel* many-flowered, stalked. *Corolla* of a very pale violet colour, turbinate rotate, scarcely above $\frac{1}{2}$ of an inch long: *tube* continuous with the germen and of the same diameter and colour, many times shorter than the limb: segments of the *limb* nearly uniform, 5 forming the upper lip, a single one the lower; the whole of them spatulately lanceolate, three outer ones tipped with a distinct point (mucronate), 3 upper ones deeper coloured and nearer to one another, the upper middlemost one rather the broadest, two lateral ones wider spread, the lowermost one of all much smaller and paler than any. *Stamens* almost twice shorter than the limb: *filaments* of a diluted violet colour, taperingly filiform. *Germen* ovally oblong, shining: *style* nearly the colour of the filaments, straighter than them, subulately filiform, 3-cornered stiff; *stigma* a simple smooth terminating point.

We are to thank Mr. Brown for the description of the seed of this genus; the nature of which had been misconceived until the present subject was submitted to the test of his accurate and skilful investigation.





Arisaema

M. Rostk. del.

Pub. by J. P. Putnam, 170. Broadway, Jan. 1, 1821.

J. H. B. sc.

ARUM tenuifolium.

Grass-leaved Italian Arum.

MONECIA POLYANDRIA.

Nat. ord. AROIDEÆ. Jussieu gen. 23. Div. I. Spadix spathâ involutus.
 AROIDEÆ (includentes tam *Typhas* quàm *Aroideas* Jussieu).
 Brown prod. 1. 333. Sect. I. Flores declines; Perianthio (Calyce) nullo.
Aroideæ veræ.

ARUM. Suprà fol. 450.

Div. Acaulia, foliis simplicibus.

A. *tenuifolium*, acaule; foliis (tardioribus escapo) angusto-lanceolatis, spatha subrecurva, spadice longo vermiformi acuto declinato. *Lamarck encyc.* 3. 10. n. 10.

Arum *tenuifolium*. *Lin. sp. pl. ed. 2. 2. 1370. Mill. dict. ed. 8. n. 5. Willd. sp. pl. 4. 486. enum. 2. 986; (excluso passim synonym. Gron. orient. ad ARUM gramineum. Russell alepp. 2. 264. pertinente). Hort. Kew. ed. 2. 5. 309.*

Arisarum *angustifolium* Ornithogali lutei facie. *Lobel adv.* 260, 261.

Arisarum *angustifolium*. *Chus. hist.* 2. 74.

Folia *tardiora flore, radicalia, angusta, lanceolata, graminis vel Scorzoneræ penè instar, glabra viridia 7-8-uncias longa, deorsum subattenuata, basi equitantia. Caulis brevissimus vaginâ membranaceâ inclusus: spatha elongata, acuminata, recurvula: spadix longus, gracilis, vermiformis, acutus, rubens, extra spatham inclinatus. Lam. loc. cit. (ex gall. vers.)*

Native of Italy; and said to have been cultivated here in 1570; though we had never met with a plant of it till last summer, when an imported one, from Italy, flowered in the greenhouse of Mr. Griffin at South Lambeth, where the drawing was made.

The species has been inserted in some of the Floras of France, as native of that country; but in the sixth Volume or Supplement of the *Flore Française* by M. de Candolle, we are told it is not a plant of that country, and has been enumerated as such through mistake.

The ARUM, generally adduced for this species from the "Flora Orientalis" (a work compiled by Gronovius from the Herbarium collected in the Levant by Rauwolf) is very different from *tenuifolium*, and belongs to ARUM *gramineum* of Dr. Russell's Natural History of Aleppo, as is proved by samples preserved in the Banksian Herbarium. In that the spathe is far broader and shorter, the spadix upright and

clavate (not inclined and tapered), the leaves much narrower, and not produced after the flower has faded, but in perfection at the same time with it; and is on this account we believe different also from the *ARUM gramineum* of Lamarck's Encyclopédie.

We know of no certain figure of *tenuifolium* subsequent to the cut we have cited from Clusius's work.

The following is from the French of M. de Lamarck :

Leaves appearing later than the flower, all upon the root, lanceolate, very like those of Viper's Grass (*Scorzonera*), five or ten inches long, smooth, tapering a little downwards, striding at the base. *Stem* exceedingly short, enveloped in a membranous sheath. *Spathe* terminal, long, taper-pointed, slightly recurved. *Spadix* (receptacle of the flowers and fruit) long, slender, vermiform, taper-pointed, red, bending forwards out of the spathe.

The fruit, according to Clusius, white and only just raised out of the ground.

Tenuifolium, *gramineum* (Russell), and *gramineum* (Lam.) have all of them undivided grassy leaves, though variously modified in each species, and are all in so far anomalies in the genus.



IXORA Bandhuca.

Bushy Ixora. Bandhuca.

TETRANDRIA MONOGYNIA.

Nat. ord. RUBIACEÆ. Jussieu gen. 193. Div. VI. Fructus monocarpus bilocularis dispermus. Stam. 4. Folia opposita, caulis plerumque frutescens.

IXORA. Suprà vol. 2. fol. 100.

I. *Bandhuca*, fruticosa; foliis ovalibus amplexicaulibus corymbis congestis: corollæ laciniis ovatis obtusis, baccis calyce patente coronatis. Roxb. flor. ind. 1, 386; (ex angl.)

Bandhuca. (Sir William Jones in) asiat. res. (Calcutta edit.) 4. 250. n. 13; (excluso synonymo IXORÆ coccinæ Linn. quæ est grandiflora, suprà vol. 2. fol. 154.)

Frutex dumosus, ramis numerosis flexuosis. Fol. oblonga v. obovato-oblonga, obtusa acumine brevi nervis lateralibus horizontali-divaricatis: stipulæ utrinque bractæque subulato-cuspidatæ cum apiculo rubente lanuginosæ; bractæ summæ angustiores calyci subtenasæ triploque breviores. Cymæ subfoliosæ confertæ subdivisæ, pedicellis unifloris brevissimis. Cal. parvulus, ovatus, obsolete lanuginosus, limbus erectus tubo subarctior triploque brevior segmentis ovato-acuminatis coloratis. Cor. extus lanugine minutissimâ opacata, limbus plus duplo brevior tubo, lac. ovatis obtusulis ad latera baseos deflexis brevique unguiculatis simulantibus. Fil. colorata, subrobusta, 3-plo ultravæ breviora antheris flavis lanceolatis mucronatis atque basi utrinque glandulâ obtusâ productis. Stigma exsertum, oblongum, bilobo-partitum. (Bacca calyce patente-persistente coronata.)

We owe the introduction of this fine species, as well as that of its congener *grandiflora* (published in the second Volume of this work, fol. 154), to Sir Abraham Hume. The plant, of which a sample was imparted to us, flowered this summer (for the first time) in the hothouse at Wormleybury, where it had been cultivated for at least six years.

The following is the account of the species by Dr. Roxburgh.

“A bushy shrub, uncommonly full of branches; native of Hindustan, the flower of which, according to Sir William Jones, is often alluded to by the best poets of India. It is in bloom nearly the whole year, but principally during the rains; when it is highly ornamental.”

“Stem none, but branches innumerable; these divide much and feather down to the ground, forming a large

hemispherical bush: *bark* of the *older branches* dark brown and rather rough, of the *younger shoots* smooth and green. *Leaves* opposite, stemclasping (or rather appearing so, for in fact they have a short upright close-pressed petiole, above which the base of the leaf is bent so as to form a slight sinus that stands close to the branch, looking as if it surrounded or clasped part of one side of it), oblong, obtuse, with a small point, entire, firm, smooth on both sides: *stipules* interfoliaceous, annular, with a subulate process on each side. *Corymbs* terminal, crowded, repeatedly divided, divisions short, (pedicles very short). *Flowers* numerous, bright crimson-scarlet; or scarlet at first and afterwards crimson: *bractes* opposite, conic, acute. *Calyx* 4-toothed, coloured, permanent. *Corolla*: tube long (twice the length of the limb or more), slender; *segments* ovate, rather obtuse, spreading. *Filaments* short (red), inserted without the mouth of the tube, spreading: *anthers* linear (lanceolate adnate inwards, thrice longer than filaments, mucronate). *Germen* 2-celled, one *ovulum* in each cell attached to the middle of the partition: *style* length of the tube; *stigma* (clavately continuous, deep red, oblong) bifid. *Berry* spherical, as big as a large pea, smooth, fleshy, when ripe purple, 2-celled: *seeds* solitary, oval, convex on the outside, flat with a deep dint on the inside; *coats* two, outer nucamentaceous, inner membranous; *albumen* of the shape of the seed, cartilaginous, rudiment of the future plant erect, curved, nearly as long as the albumen: *cotyledons* uniform, cordate; *radicle* inferior, cylindrical, longer than the cotyledons."

" Differs from *grandiflora* (see vol. 1. fol. 154), in being a very full-branched spreading bush; while that is much thinner of branches and a tall arborescent shrub; in having apparently stemclasping obtuse leaves, while in that they are sessile and sharp-pointed, without any appearance of clasping the branches; in having ovate bluntish segments to the corolla, while in that they are ovately lanceolate and pointed; and lastly by the berry being crowned with an open permanent calyx, while in that the calyx is closed by the conically converging segments."



PYRUS salicifolia.

Willow-leaved Pear-tree.

ICOSANDRIA PENTAGYNIA.

Nat. ord. ROSACEÆ. *Jussieu gen.* 334. *Div. I.* Germen simplex, inferum, polystylum. Pomum calycino limbo umbilicatum, multiloculare. *Arbores aut frutices.* POMACEÆ.

PYRUS. *Cal.* 5-dentatus. *Petala* subrotunda. *Pomum* clausum 5-loculare, putamine cartilagineo. *Loculi* dispermi. *Testa* cartilaginea.

Arbores v. arbusculæ (*Europæ Asiæ et Americæ septentrionalis*). *Folia* simplicia v. composita serrata. *Cymæ* patentes, terminales, multifloræ. *Bracteæ* subulata, deciduæ. *Petala* subrotunda, patentia, v. erecta, tum concava, conniventia. *Styli* glabri v. basi lanati, liberi v. partim coherentes. *Lindley pomac. in trans. linn. soc.* 13. 97.

Div. I. Folia simplicia.

P. salicifolia, foliis lineari-lanceolatis utrinque acutis subcrenulatis pubescenti-canis, floribus corymbosis. *Marsch. à bieb. flor. taur. cauc.* 1. 390.

Pyrus salicifolia. *Linn. suppl.* 255. *Pall. it.* 3. 734. *t. N. fig.* 3. *Pall. ross.* 1. 20. *t.* 9. *Hort. Kew.* 2. 176. *ed.* 2. 3. 210. *Willd. sp. pl.* 2. 1020. *enum.* 1. 527.

Pyrus sylvestris orientalis, folio oblongo incano. *Tournef. cor.* 43.

Arbor dumosa, orgyalis v. sesquiorgyalis, ramosissima, è radice succrescens. Truncus raro diametro sesquipollicari crassior, cortice tenui extus cinereo-fuscescente subfissili, ligno albo uniformi durissimo osseæ instar substantiæ levigando. Rami extremi rigidi recti epidermide lævi fusco-testacea, canitie quasi obducta: antiquiores ramulis patentissimis spinescentibus foliiferis velati stimulis infesti; juniores alternis obsiti turionibus seu apophysibus rugoso-verrucosis è quorum apice folia et flores, quæque in ramos crescere deinde pergunt. Fol. circa turiones quasi fasciculata, in spinescentibus ramis alterna sparsa, in petiolum attenuata, lanceolata, rigidiuscula, plerumque integerrima, passim versus apicem subserrata, tomento lævi obducta, suprâ obscurius viridia, subtus glauco-canescens, simillima SALICIS incubacæ. Stipulæ 0. Pomum apice apophyseos foliosæ sessilis, plerumque solitarium (haud raro geminum) turbinatum subvillosum, basi cylindraceo-attenuatum, suprâ rotundum, calyce et staminum rigescentium filamentis circa umbilicum cavum coronatum: sem. luteo-testacea, ovata, acuta, hinc plana. *Pall. ross. loc. cit.*

On remodelling the genera in a late treatise on the natural group *Pomaceæ*, Mr. Lindley has not followed M. de Jussieu in detaching the genus *MALUS* from *PYRUS*; observing that although the styles in *MALUS* are united towards their base, yet that this circumstance is scarcely of even specific importance, since it occurs in *CRATÆGUS*

Oxyacantha, which has commonly separate styles, and is variable in CHÆNOMELES and AMELANCHIER *Botryapium*.

The Willow-leaved Pear was introduced by Chevalier Pallas in 1780; and does well with us in the open ground. It has been observed wild in Persia, in Iberia, in the vicinity of Tiflis, on the plains of Mount Caucasus, in Siberia, on the banks of the Terek, and in the Levant. We have no figure of it in any of our popular publications.

The fruit shown in our plate is of the full size; though it finally turns brown. The flesh is thin, granulated, and of a stony hardness. The tree is bushy and grows to the height of from six to twelve feet, with a stem that seldom exceeds two inches in diameter, the wood of which is exceedingly hard, white, and close-grained, being said to polish nearly as well as ivory. The flowers grow many together in a corymb; but scarcely ever more than two, and generally only one, in each corymb, produce fruit even on the native tree.

The author of the *Flora Taurico-caucasica* distinguishes the species of this article from *P. elæagrifolia* of the same regions, by the narrower slightly undulated leaves with a thinner silvery fur, and by the same being sometimes glandularly, though faintly, crenate, as well as by a style longer than the stamens.

The following is our english version of Mr. Lindley's restricted character of the genus: "*Calyx* 5-toothed. *Petals* nearly round. *Fruit* (*Pome*) closed at the top, 5-celled, with a cartilaginous shell or cell-case (*putamen*). *Cells* 2-seeded. *Seedcoat* cartilaginous."

The genus is arranged under three divisions, and is composed at present of 24 certain and 3 doubtful species, to which, Mr. Lindley says, several undescribed ones from India, in the Banksian and Lambertian Herbariums, are to be added, as well as one from Mexico in Mr. Lambert's possession.

PYRUS, under this limitation, does not appear to have any recorded representative of the type, either in South America or in South Africa.



And. Edwards del.

Part. for J. Polakow 170 Piccadilly Dec. 1 1891.

CORRÆA alba.

White Correa, or Botany-Bay Tea-tree.

OCTANDRIA MONOGYNIA.

Nat. ord. DIOSMEE. Brown in append. to Flind. voy. 2. 545.
 CORRÆA. Suprà vol. 1. fol. 3.

C. alba, foliis ovato-rotundatis in petiolum attenuatis; floribus solitariis pluribusve in cymam; corolla turbinato-reflexa: petalis discretis, margine inflexis.

Corræa alba. Andrews's reposit. 18. Ventenat malm. 13. Desfont. in ann. du mus. 2. 32. Willd. sp. pl. 2. 324. Hort. Kew. ed. 2. 2. 349.

Corræa cotinifolia. Parad. lond. 100.

(β) color intensius rubiginæus; folia minora; flores solitarii v. gemini.

Corræa rufa. Labillardière voy. à la réch. de la Pérouse. 2. app. 120. Ventenat loc. cit. Persoon syn. 1. 419.

Mazeutoxeron rufum. Labillardière loc. cit. 2. 11. t. 17.

Frutex dumosus, erectus, pube compositâ, rufescente; rami parum divergentes. Folia subuncialia, coriacea, patentia; juniora rubiginæo-pubentia; seniores prolapsis villis suprâ glanduloso-puncticulata comparentia, obscure venosa, fusco-virentia, subtus tomentoso-candicantia, petioli 2-3-lineares. Pedunculi petiolis breviores, nunc bi-trichotomi, 3-5-flori; pedicelli breves sæpius juxta florem bibracteati. Cal. cupulatus, repando-dentatus, brevis. Cor. semunciam exsuperans, albida, extus tomentosa, intus glabrata, rugosa, erubescens; pet. soluta, ligulato-oblonga, acuta, canaliculata. Stam. erecto-potentia, corollam æquantia, alternè subbreviora: fil. à basi subclavatâ sulcatâ setacea: anth. incumbentes, antè anthesin sanguinæ. Germ. hirsutum sulcis octonis impressum: stylus setaceus: stig. obsoletè 4. Flores inodori, fundo nectarifero.

The whole shrub, except the bloom, has a dusky appearance, and when drawn through the hand diffuses a refreshing fragrance, resembling that of the Myrtle in bloom. It belongs to New South Wales, where the leaves have been often used by the colonists as a substitute for Tea; and Mr. Brown tells us, that he has prepared it so as to have been drank by some of his European guests for good Chinese Tea. The art is to adapt the infusion so as to prevent too great a degree of bitter. In this country it varies much in the size of the leaf, which we have seen from half an inch to one and a half long, and more than one broad. We have sometimes perceived on these what appeared to us an oily secretion, seemingly exsuded from

minute glands on their upper surface. The compound hairs are far less conspicuous than in *virens*, and shorter.

The Banksian Herbarium contains spontaneous specimens of the present plant; as well as of *rufa* of Labillardière from Van Diemen's Land, which we have subjoined as a variety or subspecies; not being able to discover any other marks of distinction than those we have stated in distinguishing the variety β .

This species was introduced by Sir Joseph Banks in 1793; and has become very common in our greenhouses; being of easy culture, and quickly multiplied by cuttings. It blossoms in autumn and winter.

The drawing was made in the Botanical Garden of Comtesse de Vandes at Bayswater, three or four years ago.

STRELITZIA parvifolia; β . juncea.***Rush-leaved Strelitzia.***

PENTANDRIA MONOGYNIA.

Nat. ord. MUSÆ (MUSACÆ). *Jussieu gen.* 61.

STRELITZIA. *Spatha universalis* terminalis, monophylla, canaliculata, acuminata, patenti-declinans, basin florum involvens. *Partiales* lanceolatae, floribus breviores. *Perianthium* nullum. *Cor.* irregularis: *pet.* 3, lanceolata, acuta: *inferius* naviculare; *superiora* obtusè carinata. *Nectarium* triphyllum. *Foliola* 2 *inferiora* petalis paulò breviora, è latà basi subulata, margine undulata, complicata, includentia genitalia, versùs apicem posticè aucta appendice crasso, formà dimidiæ sagittæ. *Foliolum inferius* breve, ovatum, compressum, carinatum. *Fil.* 5, filiformia, receptaculo insidentia: 3 altero foliolo nectarii, 2 cum stylo altero foliolo inclusa. *Anth.* lineares, erectæ, filamentis ferè longiores, inclusæ. *Germ.* inferum, oblongum, obtusè 3-gonum. *Stylus* filiformis, longitudine staminum: *stig.* 3, subulata, petalis altiora, erecta, initio florescentiæ conglutinata. *Caps.* subcoriacea, oblonga, obtusa, obsoletè trigona, 3-locularis, 3-valvis: *sem.* numerosa, conceptaculo centrali duplici ordine adhærentia. *Solander in schreb. gen. pl.* 2. 796.

S. parvifolia, scapo longitudine petioli vicesies longioris folio lineari-lanceolato. *Dryander in Hort. Kew. ed.* 2. 2. 56.

Strelitzia Regina; γ . *parvifolia*. *Smith in Rees's cyclop. in loco.*
 (β) *juncea*; petiolis sæpiùs aphyllis.

In the last edition of the Hortus Kewensis we find six species of this splendid genus, characterized by the late excellent Mr. Dryander with his usual ingenuity and precision. They are all natives of the Cape of Good Hope.

Our plant will appear at once to differ from *parvifolia*, by the footstalks being without any leaf at all; yet they are said to be now and then furnished with one like that of *parvifolia*, even while cultivated in the collections of this country; where however the plant is very rare and scarcely ever seen in blossom. We have not separated it from *parvifolia*, not being aware of any difference beyond what we have stated.

The drawing was made in Sir Abraham Hume's hot-house at Wormleybury, in September last. The footstalks, we understand, were about three feet high, all without any leaf; the flower-stalk shorter than these.

The plant seems to be included by Sir James Smith, with *ovata*, *angustifolia*, and *parvifolia*, in *Reginæ*; of which species he speaks as follows, in the place we have cited in the synonymy;

“ Sir Joseph Banks, for nearly 50 years indefatigable in enriching the gardens of this country, is recorded as having introduced this superb flower in 1773. Its habit resembles a *MUSA* or *CANNA*, except in the want of a stem. The leaves are smooth, rigid, and coriaceous, erect, on long, straight, stout nearly cylindrical, smooth, radical footstalks, sheathing at the base. The form of the leaf itself is usually ovate, acute, entire; wavy or crisped at the base, especially on one side; furnished with a long midrib, which sends off several simple, oblique, parallel, transverse veins. Sheaths one or two, at the top of the cylindrical simple flower-stalk, nearly horizontal, thick and rigid, purplish and thin at the edges, acute, 4 or 5 inches long, each containing many flowers, which expand in succession. The orange-coloured petals, 3 or 4 inches long, are strikingly contrasted with the blueish purple nectary, both together composing one of the most brilliantly coloured flowers in nature.”

“ We presume to think that *S. ovata* of *Hort. Kew.* does not deserve to be marked even as a variety, nor do the figures quoted answer to the character. The *angustifolia*, recorded as having been cultivated by the Marquis of Rockingham in 1778, we can aver to be a mere variety of *Reginæ*. If we mistake not, it was given to the Marquis by Mr. Bamber Gascoyne. Of this we are certain, that offsets of the original root, in the stoves of the late Marchioness, where for many successive years we have observed them, gradually diminishing in the size and breadth of their leaves, became first *S. angustifolia*, and then *parvifolia*, of *Hort. Kew.* Similar varieties may indeed have been fresh imported from the Cape, but this does not prove their specific difference. In some specimens the leaf dwindles to a point.” *Smith loc. cit.*



MUSSÆNDA frondosa.

Burmah's Mussænda.

PENTANDRIA MONOGYNIA.

Nat. ord. RUBIACEÆ. Jussieu gen. 196. Div. IV. Fructus monocarpus bilocularis polyspermus. Stam. 5. Fol. opposita, caulis sæpè frutescens.

MUSSÆNDA. Cal. 5-fidus laciniis linearibus. Cor. infundibuliformis, tubo longo vix suprâ dilatato, limbo plano 5-partito. Anth. oblongæ intratubum subsessiles, non exsertæ. Caps. ovata membranacea, apice nuda aut coronata, 2-locularis polysperma, receptaculo seminifero elevato loculos bipartiente; sem. ideo quadrifariâ disposita, numerosa minutissima. Frutices plerique hirsuti: flores sæpè corymbosi, terminales, bracteati; corolla sæpè extûs hirsuta. Hic sola sistenda MUSSÆNDA frondosa Lin. cujus insuper lacinia una calycina persistens cæteris deciduis, producta in folium amplum petiolatum caulinis conforme sed discolor et 5-7-nerve. Juss. loc. cit. 200.

M. frondosa, ramis foliisque villosis, tubo corollæ paulò longiore laciniis calycinis. Dryander in MSS. biblioth. banks.

Mussænda frondosa. Linn. sp. pl. ed. 2. 1. 251. Vahl symb. 3. 37. Willd. sp. pl. 1. 997. Roxburgh MSS.

Mussænda pubescens. Curtis's magaz. 2099; (non Dryandri Hort. Kew.)

Mussænda zeylanica, flore rubro, fructû oblongo, folio ex florum thyrso prodeunte albo. Burm. zeyl. 165. t. 76.

Frutex altiusculus, villosissimus, ramis teretibus erectis canis remotè foliosis. Fol. opposita, ovali-lanceolata acuminata, infrâ densius villosa; petiolo brevi hirsuto, stipulâ herbaceâ erectâ hirsutâ utrinque stipato. Cymæ terminales, subtrichotomæ, foliolorum pare subtensæ: pedunculi vix longiores petiolis, teretes, villosi, pluriflori; pedicelli robusti brevissimi v. subnulli uniflori: bractæ stipulis similes, calyci appressæ. Germ. subrotundum hirsutum, disco glanduloso glabro umbilicato coronatum. Cal. marginis germinis continuus, campanulato-patens; foliola herbacea distincto-distantia, subulata hirsuta, vix duplo breviora tubo corollæ, decidua, præter unum in flore uno cymularum aliquarum primariarum cujusque cymæ in folium candidum petiolatum subviridi-nervosum villosum formâ aliorum foliorum at majus et nervis 3-5 præditum procrecens. Cor. flava erecta extûs villosa; faux paulò amplior tubo, intûs albo-barbata; limbi lacinia convexissima. Antheræ lineares, fauce demersæ.

Upon referring to Hermann's Herbarium, the source of *MUSSÆNDA frondosa*, the samples representing it will be found to belong in reality to two species, the present, and that which has been proposed by Mr. Dryander in the last edition of the Hortus Kewensis, under the name of *pubescens*, differing from the one before us in many essential points, and remarkably in having the tube of the corolla

several times longer than the calyx, while in the plant before us the corresponding part is little more than one third longer than the calycine leaflets.

We have omitted the standing synonyms from the works of Van Rheede and Rumphius; the *Belilla* of the former from want of likeness in the figure to our plant, as well as from want of agreement with the description in the text; and the *Folium Principissæ* of the latter, because it appears to be the *MUSSÆNDA glabra* of Vahl (probably the same with *corymbosa* of Roxburgh MSS.). Burmann's plant we have no doubt belongs to the same species as the subject of this article.

Frondosa belongs to the Island of Ceylon, where *MUSSÆNDA*, adopted by Linnæus for the technical name of the genus, is the vernacular one of the species. It is said by Dr. Roxburgh to be also native of several other parts of India.

The large white greenish-nerved long-stalked permanent leaf into which a leaflet of the calyx of one of the flowers in each of the three or four primary divisions of every bunch is transformed, is so unusual a circumstance, and of such extraordinary appearance, that it cannot fail to attract the notice of the most unpractised observer of plants, and seems designed, like the wings of the fruit in the Ash, the Maple, the Lime, &c. to assist in the dissemination of the species. This part is said by Dr. Roxburgh to be used at table in India.

The drawing was taken from a plant which flowered last summer in Mr. Kent's hothouse at Clapton. We were also favoured with a sample from Mrs. Evelyn of St. Clare, in Kent.

Three distinct species of *MUSSÆNDA* are now known in our gardens; all tall slender shrubs, from the East Indies and China.

The present is a largish densely pubescent shrub, with upright grey-furred branches. *Leaves* wide apart on the branches, opposite, ovally lanceolate, taper-pointed, with a thicker fur underneath; *petiole* short, shaggy, with an herbaceous upright shaggy *stipule* on each side. *Cymes* terminal, subtrichotomous, subtended by a pair of small leaflets: *peduncles* (main flowerstalks) scarcely longer than the petioles, round, villous, manyflowered; *pedicles* exceedingly short robust oneflowered: *bractes* similar to the stipules, pressed to the calyx.



Lydia Edwards del.

from the original, Sp. 27, vol. 1, No. 1, 1821.

2. B. 1821.

ABROMA augusta.

Smooth-stalked Abroma.

POLYADELPHIA DODECANDRIA.

Nat. ord. MALVACEÆ. Jussieu gen. 271. Div. V. Stamina basi in urceolum sessilem connata, sterilia fertilibus intermixta, definita aut rariùs indefinita.

ABROMA. Cal. 5-partitus persistens. Pet. basi fornicata (nectarium Linn. suppl.) apice 10-fidum, laciniis 5 brevibus 3-fidis 3-antheriferis, 3-alternis sterilibus erectis linearibus apice recurvato-fornicatis. Styli 5 approximati; stig. 5. Caps. oblonga truncata mucronata, 5-alata, 5-locularis, suprà dehiscens, polysperma; sem. numerosa (nigra scabra ovato-globosa) receptaculis barbatis utrinque adhaerentia, incompletè arillatà. Frutex, flores (THEOBROMÆ) axillares (rectiùs oppositifolii); fructus HIBISCI. Juss. l. c. 276.

A. augusta, ramis tomentosis lævibus, foliis adultis subtùs pube simplicissima, capsulæ alis apice truncatis: angulo exteriori acutiusculo. Brown in Hort. Kew. ed. 2. 4. 409.

Abroma augusta. Linn. suppl. 341. Willd. sp. pl. 8. 1424.

Abroma augustum. Salisb. parad. lond. 102; absque icone.

Abroma Wheleri. Retz. obs. bot. 5. 27. Willd. sp. pl. 3. 1425.

Abroma fastuosum. Jacq. hort. vindob. 3. 3. t. 1; (non aliorum).

Ambroma angulata. Lamarck encyc. 1. 126.

Theobroma augusta. Linn. syst. nat. ed. 13. 233. J. Miller illustr. cum tab. Gossipium demonis. Rumph. amboin. 4. t. 14; (monente D. Roxburgh).

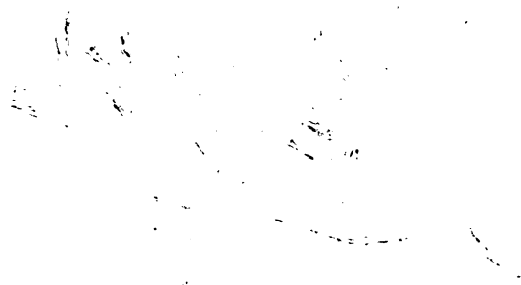
(*Arborescens, sub12pedalis*): caules plures, lignosi, medullosi, erecti, cylindracei, supernè foliosi. Fol. alterna, magna, basi cordata, subpalmato-lobata, angulosa, remotè dentata, mollia, virentia, subtus pubescentia, petiolis longis; inferiora angulis 5-7 profundis nervisque totidem primariis, superiora minora angulis sæpiùs quinque supernis, ad basin bilobato-rotundata. Paniculæ breves ramulorum, superiorum in axillis positorum caulisque terminales, floribus brunneo-purpurascensibus; bracteæ 2 angustæ acuminatæ ad basin pedunculi communis panicularum, aliæ 4 involucrium instar ad bases divisionum. Lamarck loc. cit. (ex gallico versum.)

ABROMA was formerly included in the same genus with the Chocolate-Tree (THEOBROMA Cacao); but has been since detached, and we believe consists as yet of only two recorded species, the subject of this article and *fastuosum*, the latter found in New South Wales and the Moluccas, and distinguished by the long prickly stalks and elongated taper-pointed angles of the summit of the capsule; in *augustum* the stalks are smooth and the top-corners of the capsule short-pointed.

The drawing was made two or three years ago from a plant in the hothouse of Sir Abraham Hume's garden at Wormleybury. A flower is shown in the figure, by Mr. Edwards, more widely expanded and rather more upright than we believe it ever becomes naturally, in order that the interior of the flower might come into view. But our plate is far too small a field to admit of giving any idea of the growth and appearance of this stately vegetable. The top-leaves (shown in the plate) are oblongly cordate nearly twice longer than broad, scarcely angular or scalloped, and have short stalks, the lower ones oblately cordate, nearly round in the circumference, cut into 5-7 pointed lobes, and have long stalks. The corolla is nodding, and the petals converge.

• We do not know why the generic title has been changed into *AMBROMA* by the Chevalier de Lamarck.

Dr. Roxburgh takes the following notice of this species.
“ It is found in various parts of India, growing to be a small
“ tree. Flowers most profusely during the rains, and ripens
“ seed in the cold season. The bark abounds with strong
“ white fibres, which make a very good substitute for hemp;
“ and as the plant grows so quickly as to yield two, three,
“ or even four crops of cuttings within the year fit for peel-
“ ing, &c. &c.; it may be advantageously cultivated (in
“ India) for its fibres, which, though not so strong as hemp,
“ make a good common cordage.”





M. Hort. del.

Pub. by J. Redgway 170 Piccadilly Feb. 1. 1821.

J. Wallis sc.

HOMALIUM racemosum.

Bunch-flowered Homalium. Acomas.

POLYANDRIA TRIGYNIA.

Nat. ord. ROSACEÆ. Jussieu gen. 334. Div. VIII. Genera Rosaceis affinia.

HOMALINÆ. Brown's botany of Congo. 19.

HOMALIUM. Cal. basi turbinatus semisuperus, limbo patens 6-7-partitus, laciniis persistentibus. Pet. persistentia, 6-7, laciniis calycinis majora. Glandulæ (nectaria Jacq.) 6-7, unguibus laciniarum calycis insidentes. Stam. plurima (18-24) perigyna, 3 aut 4 congenita ex basi cujusque petali: anth. subrotundæ. Germ. semiinferum apice desinens in stylos 3-4; stig. 3-4, simplicia. Caps. semiinfera, limbo calycis petalisque patentissimis coriaceis cincta, 1-loc., apice 3-4-valvis aut non dehiscens, intis polysperma; sem. pauca parietibus affixa. Arbores aut frutices; fol. alterna stipulacea; flores spicato-paniculati axillares, divisuris paniculæ bracteolatis, pedicellis medio articulatis. An Rhamnis affinius; an embryo absque albumine? Juss. l. c. 343.

H. racemosum, foliis serratis, racemis axillaribus terminalibusque, floribus pedunculatis. Swartz prod. 86.

Homalium racemosum. Jacq. amer. 170. t. 183; fig. 72. Willd. sp. pl. 2. 1225. Richard in actes de la soc. d'hist. nat. de Paris 112. Swartz fl. ind. occid. 2. 989.

Acomas à grappes (Homalium racemosum). Lamarck encyc. 1. 32.

Arbor 10-15 pedalis, s. arbuscula, s. frutex: rami patuli, subdivisi, inermes, ramulis demum tenuissimis rigidiusculis. Fol. petiolata, 2 pollic., oblonga, utrinque acuminata, obtusè serrata, nervosa, venosa, tenuiora, utrinque glabra: pet. breves glabri. Racemi axillares; rarius terminales, solitarii, erecti, simplices, 3-5-pollic., multiflori; flores breviter pedicellati, alterni, approximati, albidii, magnitudine HYPERICI perforati; pedic. 1-flori. Cal. semisuperus, basi turbinatus, 6-7-partitus; lac. lineari-lanceolatis, patentibus, sesquilinearibus, villosiusculis. Pet. 6-7, fauci calycis inserta, laciniis calycinis alternantia et majora, ovato-oblonga, patentia, utrinque submentosa s. sericea, ex albido lutescentia: glandulæ 6-7, ad basin petalorum posita, subglobosæ, villosiusculæ, albæ. Fil. 18-21, inter singulam glandulam tria omnia distincta, basi petalorum calycisque inserta, filiformia: anth. subrotundæ, sanguineæ. Germ. medio calyce cinctum, supra faucem in formam conicam elevatum, hirsutum: styli 3, filiformes, longitudine staminum, glabri; stig. simplicia. Caps. semiinfera, dura, ovato-acuminata, 1-loc., apice 3-valv., inferne 3 lineis elevatis villosis notata, polysperma: sem. aliquot, fusca, parietibus affixa. Numerus partium variat. Swartz fl. ind. occ. l. c.

The species was observed by Dr. Swartz, growing in meadows and at the sides of rivers, in the northern part of Jamaica, where it becomes a tree from 10 to 15 feet high.

The drawing was made at Mr. Kent's at Clapton; a plant having flowered in that gentleman's hothouse in September last, and is probably the first ever introduced into this country.

The genus had been consigned by M. de Jussieu to a group appended, as a division of doubtful affinity, to his *Rosaceæ*. A further research into its structure, as well as that of some kindred genera, has suggested to Mr. Brown a different notion of their position in the vegetable system; and determined their combination into a separate order, to which *HOMALIUM*, as the main type, has communicated the technical denomination.

We regret to find ourselves obliged, from want of room, to refrain from extracting the whole of the instructive remarks that accompany the project and definition of this new order, and to confine ourselves to the passage which contains its character.

“The distinguishing characters (of the order *Homalinæ*) are the segments of the perianthium (calyx and corolla of Jacquin and Swartz) disposed in a double series or an equal number of segments nearly in the same series; the want of petals; the stamina being definite and opposite to the inner series of the perianthium, or to the alternate segments where they are disposed apparently in a simple series; the unilocular germen (generally in some degree coherent with the calyx) having three parietal placentæ (receptacles of the ovula), with 1, 2, or even an indefinite number of ovula; and the seeds having albumen, as inferred from a genus from Congo. The cohesion of the germen with the tube of the perianthium, though existing in various degrees in all the genera we have enumerated, is probably a character of only secondary importance in *Homalinæ*. For an unpublished genus found by Commerson in Madagascar, which in every respect agrees with this family, has germen superum. This genus at the same time seems to establish a considerable affinity between *Homalinæ* and certain genera, either absolutely belonging to *Passifloreæ*, especially *PAROPSIA* of M. du Petit Thouars, or nearly related to them, as *ERYTHROSPERMUM* well described and figured by the same excellent botanist.” *Brown's botany of the Congo*. 19.



1. 1946 22.

Read by J. H. Aspinery 170 Society, Feb. 1, 1821.

J. Walter

SEDUM cæruleum.
Barbary Stonecrop.

DECANDRIA PENTAGYNIA.

Nat. ord. SEMPERVIVÆ. *Jussieu gen.* 307.
SEDUM. Suprà vol. 2. fol. 142.

Div. Teretifolia.

S. cæruleum, foliis oblongis alternis obtusis basi solutis, cymâ bifidâ glabrâ.
Vahl symb. 2. 51.

Sedum cæruleum. Willd. sp. pl. 2. 766.

Sedum azureum. Desfont. flor. atl. 1. 362.

Sedum vermiculare pumilum glabrum, floribus parvis cæruleis. Shaw specimen. 46. n. 550. fig. 550.

Caulis sæpè procumbens, 3-4-uncialis teres lineolis rubris interruptis crebris pictus, nunc ramosissimus ramis adscendentibus. Flores parvuli, violaceo-pallentes, numerosi, paniculato-racemosi; racemi ramulorum terminales, infernè subfoliosi, pedicellis alternis unifloris filiformibus patentissimis sub-æquantibus flores: bracteolæ caducæ, membranaceæ, rubræ, subulatæ, minutæ. Fol. teretiuscula, subspathulato-oblonga, obtusa, lincolis rubris punctata, suprà versùs basin concava v. canaliculato-depressa. Cal. crassus, cupulatus, virens, punctis linearibus rubris aspersus, duplo brevior corollâ, 7-fidus, persistens, segmentis obtusis. Petala 7, oblonga, obtusula, patentia, caduca, siccatione intensè cærulescens: glandulæ crystallinæ, minimæ, oblata, bilobo-emarginatæ, singula basi cujusque germinis inserta. Pistilla 7, æqualia corollæ; germ. oblonga incurvescentia, dorso planiuscula indè introrsum in aciem attenuata, primò albo-micantia, indè herbaceo-virentia atque lineolis rubris punctata, infernè intùs glanduloso-muricata, stylo albo continuo setaceo-rostrata. Stam. corollæ æqualia, patentia; fil. setiformia, alba: anth. atro-violaceæ, oblato-subrotundæ, didymæ, à dorso infixæ.

A diminutive species observed at different periods in the clefts of rocks on the Coast of Barbary by Messrs. Shaw, Vahl, and Desfontaines; perhaps the smallest in the genus, where it is remarkable for the pale violet-colour of the corolla, which turns, when dry, to a full bright blue.

It is not recorded in the Hortus Kewensis; and has been probably now first introduced by Mr. Kent, in whose collection at Clapton it flowered last summer in the greenhouse.

Stem sometimes lying along the ground, 3-4 inches long, round, smooth, in some cases very much branched, dotted with shortly broken thickset tile-red lines. *Flowers* numerous, small, paniculately racemose, *racemes* termi-

nating the branchlets, sometimes partially leaved at the lower part, *pedicles* alternate, oneflowered, filiform, outspread, about equal to their flower: *bractes* membranous, minute, red, subulate, caducous and seldom found on the plant. *Leaves* subcylindrical, subspatulately oblong, obtuse, marked with red linear dots, hollowed or channelled on the inside near the base. *Calyx* cupular, 7-cleft, green with red linear dots, twice shorter than the corolla, persistent, segments obtuse. *Petals* 7, oblong, bluntish, spreading, caducous; *glandule* crystalline, very small, oblate, indented at the top with a deepish sinus, one at the base of every germent. *Pistils* 7, even with the corolla. *Germens* 7, slightly in-bowed, broad and flattish at the back, tapering inwards to an edge, at first white and glittering, at last of the substance and colour of the foliage, glandularly muricated at the base on the inside, beaked at the top by the white continuous style. *Stamens* 14, even with the corolla spreading; *filaments* setaceous, white; *anthers* dark-purple, twin, roundish.

NOTES.

Prunus japonica. Vol. 1. fol. 27.

It is asserted, in a late fasciculus of Curtis's Botanical Magazine (fol. 2176), that the plant of the above article is the undoubted *AMYGDALUS pumila* of Linnæus, and the stone of its fruit of the nature of that ascribed to *AMYGDALUS* as distinguished from *PRUNUS*, while it is suggested that our plant may not even belong to the species we have given it for.

In regard to the nature of the fruit-stone, we have only to observe that we found it decidedly of the kind proposed as the distinguishing characteristic of *PRUNUS*, being granularly roughened, but neither pitted, punctured, nor scored as in *AMYGDALUS*. This state of the stone was also observed by Mr. Lindley. The fruit has moreover the long pliant stalk of *PRUNUS*, not the short rigid one of *AMYGDALUS*.

If our plant is to be the *AMYGDALUS pumila* of Linnæus, it must be so in defiance of an important character attributed to that species in the description of it; namely, "a sessile flower," since in our plant the flower has a stalk sometimes little less than an inch in length, and always longer than the flower itself. Linnæus has also drawn a character for that species from the "petals being longer than the tube of the calyx;" but in our plant there exists no proportion between those parts which can suggest such point of comparison. It is true that a figure is cited by Linnæus from Plukenet for a synonym, where the flowers are really stalked, and which figure probably represents a variety of our plant. This we believe is the only circumstance that ever suggested the idea of the plant being the Linnean *AMYGDALUS pumila*. But then a species from Hermann is also cited as a correlative synonym; and his figure represents a plant with sessile flowers, and his description tells us, that the fruit is downy and like a small peach, while that of our plant is smooth and like a small plum or sloe. It is also true that a sample of our plant is to be found in the Banksian Herbarium inscribed *AMYGDALUS pumila*; but then it is not one of those which are marked as having been determined by collation with the Linnean Herbarium, and can only speak the opinion of the person who inscribed the name. If actually there, at the time the two Herbariums were collated, the want of that mark would indeed go to prove that the identity of the two was not satisfactory even to the person who put the title on the sample. We lay little stress upon the plants of Linnæus, Plukenet, and Hermann, being considered as African, though our plant is known to be Chinese, as that is a circumstance very liable to mistake.

It is possible that our plant may be the *PRUNUS sinensis* of Persoon; because it is a true *PRUNUS* and from China; but that author could have no other foundation for believing it the *AMYGDALUS pumila*, than Plukenet's figure.

As to the objection to our plant being the *PRUNUS japonica*, because Thunberg has described the leaves of that species as "smooth" (*glabra*), while in our plant they are wrinkled (*rugosa*); we shall only remark that the term used is "*utrinque glabra*," and that in leaves of this nature it is evident the epithet *glabra* so qualified can only apply to pubescence; and the leaves of our plant have none.

Upon the whole however it appears to us that the following synonyms may be added to the above article, although, excepting that from Hortus Kewensis, they are very questionable.

Prunus sinensis. Persoon syn. 2. 36? (*vix tamen quoad synonyma*).

Amygdalus pumila. Hort. Kew. ed. 2. 3. 195; (*fide Herb. Banks.*); *vix tamen Linnæi?*

NOTES.

Amygdalo-Persica nana, flore carneo pleno, africana. *Pluk. phyt. t. 11. fig. 4?*

Our plant was certainly imported by the late Mr. Charles Greville from China.

Rosa provincialis; β . (*muscosa fl. simpl.*) Vol. 1. fol. 53.

This species is very reasonably supposed to be the *ROSA centifolia* of Linnæus by Mr. Lindley in a Monograph of the Roses; to which we shall refer.

Ixora blanda. Vol. 2. fol. 100.

In the first published volume of Roxburgh's *Flora Indica*, the species stands under the title *IXORA alba*: with the observation that it is a Chinese plant, and possibly a mere variety of *IXORA stricta* (the *IXORA coccinea* of Hortus Kewensis, but not of Linnæus, which is the *IXORA grandiflora*, vol. 2. fol. 152, of this Register).

Ixora alba. *Roxb. fl. ind. 1. 389. (non aliorum.)*

Rosa provincialis; β . (*muscosa fl. albo*). Vol. 2. fol. 102.

The last observation but one applies equally to the subject of this article.

Hedychium angustifolium. Vol. 2. fol. 157.

The synonym of *HEDYCHIUM coccineum*, a Nepaul plant, belongs, we understand, to a species distinct from *angustifolium*, and should be expunged from the above article.

Astragalus caryocarpus. Vol. 2. fol. 176.

Since the above article was published, this species has appeared as follows.

Astragalus carnosus. *Nuttall gen. 2. 100; (non tamen Pursh amer. sept. 2. 740).*

It is said to grow on the plains of the Missouri, from the confluence of the river Platte to the mountains; and that the pods are about the size of ordinary plums, and have a considerable resemblance, as to form, with those of *ASTRAGALUS physodes*. The plant described for it by Mr. Pursh was a species of *SOPHORA*, to which he has, by mistake, applied the fruit of *ASTRAGALUS caryocarpus*.

Jasminum revolutum. Vol. 3. fol. 178.

The following synonym has appeared since the publication of the above article.

Jasminum chrysanthemum. *Roxb. flor. ind. 1. 98.*

The plant has been found in Nepaul by Dr. Buchanan, as well as by Colonel Hardwick in the place stated in our article.

It is said to acquire, after seven or eight years' growth in the botanic garden at Calcutta, a stem as thick as a man's leg.

Aerides paniculatum. Vol. 3. fol. 220.

This species has been lately included by Mr. Brown in his genus *VANDA*.

NOTES.

(See *VANDA Roxburghii*, fol. 506 of the present Volume). So that the above article should be now inscribed

VANDA paniculata.

The germen is not twisted, nor the corolla reversed, as in *Roxburghii*.

Mespilus japonica. Vol. 5. fol. 365.

Since the publication of that article, the division of the natural order to which this species belongs, has been recast by Mr. Lindley, in a treatise on *Pomaceæ* in the 13th volume of the Linnean Transactions; where our plant ranks in a new genus, named and defined as follows;

ERIOBOTRYA. Cal. lanatus, obtusè 5-dentatus. Pet. barbata. Stam. erecta, dentium longitudine. Styli 5, filiformes, inclusi, pilosi. Pomum clausum, 3-5-loculare. Chalaza nulla. Radicula inter bases cotyledonum inclusa.

Arbores mediocres (*Asiæ temperatæ et Peruviae*). Ramuli tomentosi. Folia simplicia, serrata, infrâ lanata. Racemi compositi, terminales, lanati. Bractæ subulatae, deciduæ. Lindley in trans. linn. soc. 13. 102.

Eriobotrya japonica, foliis lanceolatis serratis. Id. loc. cit. *Synonyma ut suprâ* vol. 5. fol. 365; ubi addi potest;

Mespilus japonica. Jacq. fragm. 85. t. 136. f. 2.

ERIOBOTRYA consists at present of two certain and two doubtful species, the former from China and Nepal, the latter from Peru. For the knowledge of the true nature of the fruit Mr. Lindley desires that he may be considered indebted to Mr. Brown.

In *MESPILUS*, as restricted by the definition in the above mentioned treatise, the top of the fruit (*Pomum*) is open, not closed, as in *ERIOBOTRYA*.

Viburnum rugosum. Vol. 5. fol. 376.

The following synonym belongs to that species.

Viburnum rigidum. Ventenat malm. t. 98; (excl. syn.)

Jasminum undulatum. Suprà 436.

Dr. Roxburgh has added *JASMINUM undulatum*, as a probable synonym, to the single-flowered variety of *JASMINUM Sambac*. Possibly he has in view a different plant from the *undulatum* of the above article, which is however the true Linnean *NYCTANTHES undulata*. He says his plant is one of the most common in every forest of the Coast of Coromandel. Our plant is native of China.

Jasminum Sambac; var. *α*. (Which I (Dr. Roxburgh) suppose to be *JASMINUM undulatum*). Roxb. flor. ind. 1. 37.

Tsjiregam Mulla. Rheede malab. 6. 97. t. 55.

Of the single-flowered plant the Doctor mentions two varieties, a smaller and a larger one. If our plant is the same as either, and we doubt if it is, it must be the smaller.

Begonia pauciflora. Suprà fol. 471.

Mr. Haworth tells us that this is not the species he intended by *BEGONIA patula*; therefore that synonym, which has been added with a quære, should be finally rejected.

NOTES.

Amaryllis laticoma. Fol. 497.

Mr. Herbert has been so good as to inform us that this curious plant was brought over by Mr. Burchell from the Cape of Good Hope, where it was found in the country that lies behind the Snowy Mountains. He adds, that the following notice of it (which we now insert entire) should have been adverted to in our account of the species.

"An *NERINE lucida*? Burchell. *Species nondum herbariis inventa: foliis angustis nitidis persistentibus.* I am inclined to think that this will belong to the same genus as *coranica* and *falcata*. Herbert in *Curtis's Magazine*, fol. verso 2124."

Considering the nature of the above notice we cannot be expected to take to ourselves any great degree of blame in not having discovered our plant through its means.

We confess we do not agree in Mr. Herbert's proposed alterations in regard to the genus *AMARYLLIS*. We have however always thought that the species it contains of the European type, might perhaps be separated without inconvenience into a genus of which the *strophiolated seeds* would form an important characteristic.

From a drawing we have lately seen of *IRIS reticulata*, we should judge it clearly distinct from *tuberosa*, to which it had been added in the Enumeration of the genus *IRIS*, in the Appendix to Volume V.

An extra Plate to be placed at the end of the Notes-
-appended to Volume O.



A ripe Capsule of *Amargyllia Aulica*. *Supra* fol. 444. Ripened in -
-M^r Griffin's Garden South Lambeth.

A ripe Capsule of *Griffinia Parviflora*. *Supra*
fol. 511. with two Seeds.



Ripened in M^r Griffin's Garden
South Lambeth.

Drawn by J. Anthonysen 7. Engraved by J. Smith 1821.

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